Introductory Lecture

DELIVERED AT THE

WESTMINSTER HOSPITAL.

BY C. MACNAMARA,

SURGEON TO THE HOSPITAL.

GENTLEMEN,—The first duty I have to perform on behalf of the lecturers of the Westminster School is to wish the old and new students a hearty welcome to-day. It is the earnest desire of the professors to assist you in your studies, and it will afford them great pleasure to see you take a real interest in your work. The purpose, however, for which we are assembled on this occasion is that, from my own experience of life, I should attempt to give some advice to the students now before me—a duty to my mind no less simple than it is a fitting way to commence a new medical year. Those of you who have already entered this school have had opportunities of hearing introductory lectures from my predecessors, so that my remarks will refer—(1) to *entering* students, concerning this school, your duties, and curriculum; (2) to students *leaving*, and preparing either for general practice, consultants, or the medical services.

And, first, with regard to this school. You are perhaps aware that some eminent lecturers and teachers advocate the plan of establishing one or more large schools in London in which Physiology, Chemistry, and in fact all subjects necessary to the education in science of medical pupils, should be taught—the students being dispersed throughout our various hospitals for the purposes of clinical instruction. Among other reasons advanced in favour of this principle is that neither the founders nor subscribers to our hospitals ever intended that their funds should be diverted to educational purposes, and that the majority of our hospitals, so far as the patients are concerned, would be better off without having school, dissecting-rooms, and so on attached to them. It is also argued, and with some truth, that science can alone be efficiently taught in large schools because it is only by the accumulation of a number of fees that the services of distinguished professors, devoted to science, can be obtained, and the necessary appliances procured for educational purposes. This idea, though correct in part, does not contain the whole truth. For instance, during your first winter here you will be principally engaged in the study of Anatomy and Physiology, and, without making any invidious distinctions, I assert you will hardly find two men anywhere in London better qualified or more anxious to teach you these subjects than the gentlemen whose office it is to lecture to you on them in this place. This is not to be wondered at, for eminent professors, like other beings, are bound to have a beginning, and the smaller schools offer them an opening by means of which they go through a course of training, and by taking upon themselves the charge of classes their powers are developed, their merits as teachers become known, and so they are prepared to step into more lucrative appointments as they become vacant; in the meantime you have the advantage of their services without the inconveniences attending large classes in crowded lecture-rooms.

The disadvantage of large schools is the difficulty that the professors have of directly influencing for good the careless and idle men attending their classes, yet those are the very students we most urgently require to reach. Moreover, it is impossible for any reasonable person to suppose that lectures and examinations are the only matters pertaining to the efficient education of young men. Surely a student's habits, character, and mode of thought vastly affect not only his professional career, but also his future happiness in life, and these are greatly under the intimate personal influence of the professors and tutors he is brought in contact with.

It is with sorrow I say that to-day probably not less than two thousand medical students, without much knowledge of the world or of this vast city, will be thrown broadcast over London and confided to the tender care of the keepers of lodging-houses. Supposing a young man under these circumstances to have done a hard day's work in the dissecting- or lecture-room, before commencing his reading for the evening he requires some relaxation, and were he in a well-regulated college he would have companions in whose society he could find amusement. How different it is with a medical student! It may be after dinner he calls on some friend living near him, and finding him from home, the loneliness of this vast crowded city palls upon him, and almost forces him to seek companions among those who are ever at hand to amuse and draw him into a snare which not unfrequently casts a withering influence over his whole future life and prospects.

The profession is to blame for this state of things. By its numbers, influence, and the righteousness of the cause, if its members were only to take the matter in hand and appeal to the public, funds sufficient to build four medical colleges, with all that pertains to the teaching of science, would be forthcoming, and with them a system of discipline, tutorial supervision, and instruction, which are of such great importance in the training of young men, and have exercised so salutary an influence in the Colleges of Oxford and Cambridge.

In the absence of any such well-regulated institutions in London, it seems to me, because your numbers here are limited in comparison with many other medical schools, that our lecturers and tutors necessarily acquire an intimate personal knowledge of the students, and practically they do exercise a salutary and individual interest in your progress which I feel must be of advantage to the majority of students under existing circumstances, so that I believe you have done wisely in entering at this school; our numbers are, it is true, very limited, but we hardly intend they shall always remain so, although we are unanimous in our opinion that our classes must be in proportion to our accommodation and teaching powers.

And now with reference to your duties and curriculum. If my ideas are correct regarding the disadvantages of large London schools unconnected with collegiate establishments, the arguments I have employed are of far greater force with respect to the work for which you come here, which is essentially to study disease and the means whereby we may best alleviate or cure it. You might perhaps cultivate the sciences elsewhere, but in London there is an accumulation of hospitals, and, from its central position and enormous population, a highly distinguished set of physicians and surgeons to attend the patients in these hospitals, which afford students unrivalled opportunities of learning the practice of their profession. I wish I could impress on you the fact that the work which is carried on in the wards and out-patient department of a hospital should, during the next three years, receive by far the greatest amount of your care and attention; in fact, you can never recover advantages lost now of learning the real work of your life in a hospital like this, where you can study disease at the patient's bedside, aided by men thoroughly conversant with its various phases. And you have an advantage in this respect over students in some of the larger London hospitals, for, being few in number, every one of you can hold office as clerks and dressers, and thus make yourselves thoroughly acquainted with the history and symptoms presented by every patient in the hospital; in fact, it is your own fault if you do not profit by the bedside instruction and personal supervision afforded you in the wards and lecture-room of this hospital.

Some of you will, however, say, It is all very well to talk about hospital work, but if we go in for this as you propose, how about the qualifying examinations? And has it come to this that your main duty during the next few important years of your life is not to learn your profession so much as to pass your examinations? These objects might, it is true, be compatible, but you know perfectly well, and so do I, that they are by no means necessarily so; that is to say, many students absolutely and entirely neglect their hospital work, and in some of these institutions there is not even a register kept of the days the students attend the wards; they grind up their science (so called), and pass their examinations, with but slight knowledge concerning the information to be gained by the condition of a patient's pulse, tongue, and physiognomy, and of much that leads to a correct diagnosis and method of treatment.

I cannot help feeling that science—perhaps because it requires so small an expenditure of time to examine in as compared with the practice of medicine and surgery—is

dwelt upon too exclusively by our examining bodies; at any rate, so much attention is paid to it in comparison to a man's efficiency to practise his profession that the latter work is frequently neglected in favour of the former, to the advantage perhaps of the examiner, and unquestionably to the crammer, but as certainly to the detriment of the profession.

As to *note-taking*, I advise you to carry about a note-book with you, and jot down what you see, hear, and do with your own hands in the hospital, and on returning to your rooms in the evening reduce these rough notes to order under their respective alphabetical headings, and in a corresponding column refer to and mark what other authorities have to say on the subject. If you consistently follow out a plan of this kind from the beginning of your career here, you will not only find your powers of observation strengthened, but you will acquire practical knowledge more speedily than if you gained it by a process of natural growth. Notes taken in the way I have mentioned make a more lasting impression on your memory than hours spent in reading. And, after all, why is it that the public, as a rule, have more confidence in old than in young practitioners? Principally because the older men have more confidence in themselves; from long experience they have become fully acquainted with the phases of various diseases and the course which they run. But you may gain knowledge of this kind comparatively early in life if you diligently and systematically study disease in the wards and out-patient department of a general hospital.

And this leads me to remind you that your work commences here to-morrow. Begin your note-taking, therefore, of clinical teaching and in the lecture-rooms at once. Avoid by all means making a false start; for if you do, you can have no conception of the difficulties and troubles you may experience. The work seems so simple and easy at first: the professor of anatomy is only lecturing on the bones; you therefore allow him to go ahead just a little, under the impression that you can read-up the subject in the course of a few days. You cannot possibly make a greater mistake than this. You should, in fact, make a firm resolution to prepare yourself beforehand for the lectures of the following day, if you would really profit by them. Depend upon it, unless you follow principles of this kind you will fall into slovenly habits, get behindhand with your work, and everything will go wrong with you. Without entering into any minutiæ with regard to the course of study which the professors of the various branches will give you, I may remark that you will find it of advantage to select a single work on each of the subjects you have to study, and hold fast to that one book until you know it almost by heart.

And now with reference to students leaving this school, the serious question arises as to the line of practice you are to pursue. Some of you probably have relations or friends who have settled this matter for you by offering to take you into partnership, but there are many young medical men who have no such opening, and it is not an easy matter for them to decide what they are to do in future. I believe one source of failure among medical men arises from the haphazard way in which some of them commence their professional career. For instance, a man commences practice as a physician or surgeon in London, and although possessing abilities of a high order, he does not get on, simply because he has not the peculiar qualifications fitting him for this kind of practice. Many mistakes and much disappointment might be avoided in these matters if young medical men, before entering on any line of practice, would take the trouble to consult the professors and teachers under whom they have studied as to their prospects. It is impossible for us to see ourselves as others see us, and those who have had long experience in these matters are surely the best judges as to the capabilities of the men who have studied under them.

General practice.—One of the rules governing our position in the world is that the sunshine or clouds of life appear bright or dark as viewed through our moral and intellectual nature, and these are greatly influenced by our surroundings; consequently I think it is a pity that general practitioners cannot more readily than they have yet done give up the custom of compounding and charging for their own medicines; for so long as they continue transactions of this nature, it is hardly possible for them as a body to rise in the social scale to the position they are justly entitled to occupy. I mention the subject on this occasion because one hears general practitioners complain that, in a social point of view, their position is inferior to that of clergymen and lawyers, and they allege this difference as being one of the disadvantages of practice; and so it is, and must be so long as medical men are compelled to compound and charge for their drugs; for, as I before remarked, our surroundings influence our position.

It is evidently impossible for all to meet with equal success in life, and I admit that in general practice you can seldom call your time your own. Much of it will be spent in listening to details of unimportant ailments, but however weary (and it may be out of health) you are, you have to attend with apparent interest to complaints of the kind. You will frequently have to put up with the underhand scheming of unscrupulous rivals. All this, and very much more, must be gone through. On the other hand, how many general practitioners are the trusted friends of the families they attend, admitted to an intimacy no one else can enjoy; and in ministering to the wants of the sick and the infirm the man's heart must be a hard one if he does not learn to sympathise in the cares and sufferings of those around him, and in the opportunities afforded for relieving their misfortunes he may find a source of happiness more satisfying than that enjoyed by individuals engaged in occupations which lead to higher honours and are more lucrative than the work of your calling. Some may fancy that this is a poetical idea, because many practitioners never realise the brighter side of the picture I have attempted to delineate, but this is not the fault of their profession; it is due to their misfortune, ill-health, a false start in life, or it may be to the absence of qualities necessary to draw patients. And so I strongly recommend those of you who propose settling down in England to endeavour to join a good general practice as an assistant, in the hope of becoming a partner in the course of years. Your prospects in life under these circumstances are, I believe, very favourable, and it is your own fault if you do not succeed.

Consultative practice.—If you determine to work either as physicians or surgeons in London or any other large town, it would seem reasonable to imitate the career of those who, like our Jenners and Pagets, have gained almost the universal confidence and esteem of the profession; and I expect if you were to question either of these distinguished men, you would find that during the years of their life from twenty-five to thirty-five (when we are best adapted for making original observations), they had employed nearly all their energies on work of this description, and so laid the foundation of their reputation. It seems to me, in consequence of the multiplicity of hospitals in London, that our younger men are disposed to take up too many appointments and spend far too much of their time in attending to public duties. In addition to this, they have probably to coach up private pupils, and so they have very little leisure or strength left for original investigations. In fact, the eager desire to push on overpowers them, and prevents their laying the foundation of future eminence. This is a mistake. Original work, it is true, does not pay for some years, and consequently, as a rule, we should be careful in advising men to choose a career in London unless they have independent means. Otherwise I doubt if it is wise to throw away all the best and brightest period of your life in the hope of what may now appear to you to be a brilliant future; for depend upon it, you will find if ever you attain to the end, which seems to you so desirable, that when you have grasped the long-wished-for prize, it will in reality be little more than a shadow. And so I repeat, while health, youth, and life lie before you, be independent, be contented, living for the present, though wisely providing for the days of adversity. I think you will be happier than if depending upon the caprice of your seniors in the profession, or of lay committees outside it, and doomed to your burden of self-imposed toil in a vast, dingy, city like this.

Government service.—With reference to Government service, I can honestly say if I had my time over again I should select the Indian Medical Department for my field of work. The service is destined to undergo many and considerable changes, and I do not think it is desirable that the existing state of things should continue. The system of a double administration for the Indian and British Medical Service cannot be defended. It had grown up when the country was governed by the East India Company, but if the necessary changes are carried out according to Lord Northbrook's plan (and I believe it is the intention of the Government to adhere to his scheme), I do not suppose the position of the medical

service in India will suffer. Although I should like to know the final resolution of the authorities on the subject before giving a decided opinion, I still think that India affords you a fine field to work in. You must, however, learn the vernacular languages thoroughly, and then, with steady, hard work, you will be almost sure to rise in the service, and you will certainly be free from much of the jealousy and vexation so frequently experienced by practitioners in this country. But if you elect for the Indian Service go out as young as possible to that country, and when there do not be casting longing eyes homeward, or expect to make money rapidly. If the climate or the service do not suit you, throw it up and return to England. To succeed you must give the whole of your energies to the work you have embarked in.

For twenty years I laboured among the natives in Bengal, and wherever stationed invariably gained the confidence of the natives, as a medical man being admitted into their family circle in precisely the same way as practitioners are in this country, so that I became intimate not only with native gentlemen but with their wives and daughters, and I learnt something of their feelings and opinions regarding the present state of things in India. The deep and growing conviction of many of them is that although England has in India preserved millions of human beings from the calamities of anarchy and chronic warfare, nevertheless under our rule native society is becoming rapidly disorganised. A vast number of the old families have disappeared; the mothers and wives of the rising generation see their educated sons and husbands given over to vices formerly never heard of, utterly heedless of family or any other ties, and they contrast all this with times past, when there was not so much law, education, or taxation, but then the greatest stain that could be cast on a man's name was that of being an undutiful son. It is a pity that some of our educational authorities could not be persuaded to go out to India and study the working of purely secular education. In this country men are apt to forget how much they and society are influenced, if not by the belief, at any rate by the effect of their forefathers' confidence in the teaching of Christianity. But in India this influence is wanting; the rising generation of educated natives break away from the Hindoo faith, they entirely ignore even the existence of God, and live absolutely for self. The outcome of a purely secular education therefore in Bengal is precisely what any unbiased person might have supposed it would be—gross materialism and rank socialism; and thus the necessity for suppressing the vernacular press, a measure calculated, it may be, to smother for a period one of the only outlets by means of which Europeans had an opportunity of ascertaining the state of feeling among the natives of the country, and which, I fear, will too certainly burst forth in an insurrection, in comparison with which the mutiny was a mere brawl.

Englishmen do not shrink from danger, and it is not on that score that I caution you seriously to consider the prospects of a career in India, but your responsibilities will be great if you go there under existing circumstances. Should the hurricane I prophesy break over the land you may be swept away in its fury. Should it not arise (and I trust it never may) it will be impossible to tell how far your life and conduct may have tended to avert so great a calamity. Medical men in India often exercise in their own quiet way a vast influence for good, and, as I know from experience, gain the entire confidence of the natives, many of whom they may be justly proud to call their friends. If you can realise these ideas and act up to them by all means go to India, for, come what may, you will there find an almost unlimited sphere for developing your energies.

Army.—The British (Army) Medical Service is still in a state of transformation, and we do not know what may be in store for its officers. You will hardly thank me, therefore, for entering on a discussion as to the merits of the "unification," as compared with that of the "regimental" system. It is very possible I am biased in favour of the latter in consequence of my own very pleasant reminiscences of regimental life, and I do not appreciate the unification or departmental plan, because I do not thoroughly comprehend it; nevertheless I am bound to give you the best advice I can on the subject. It seems to me that as the departmental system, which Lord Cranbrook's committee accept as an accomplished fact, becomes more fully developed it must tend to separate military surgeons more and more from the army. In fact, under the new plan, surgeons will have but little to say to healthy combatant officers or to soldiers; they will be principally gathered together in garrison towns and large camps, where they are to establish their own mess and form themselves into a medical home, in which they will be expected to live in harmony, attending their hospitals regularly, and when occasion requires being taken out to be fired at by England's foes. For, in truth, they may not see much of the healthy living officers or soldiers unless in action, and every regiment can then have a certain number of officers in the Medical Department told off to it while under fire, and as soon as the fighting is over they will be permitted to retire to their respective field hospitals. I strongly condemn the competitive system; and believe in short service for medical officers as well as for the men, for, like the latter, the former can fall back on their profession after leaving the army. It is believed, however, that the Commander-in-Chief objects to alterations in the principles involved in the departmental system, and so the Committee above referred to deals only with details, declining to discuss the very question which I (among a considerable number of other army surgeons) think lies at the very foundation of the whole matter. If the recommendations of the Committee are carried out, the deficiencies in the ranks of the service will be made up; for they advise that half the appointments shall be given by nomination. The report, to my mind, is very unsatisfactory; for it is a half-and-half kind of measure, which, in the long run, never succeeds. Some such scheme may be necessary for the officering of our army medical administration, but until we understand its effects on the prospects, comfort, and independence of the junior officers it is perhaps wise for you to seek employment in some other sphere of action, the more so as up to this time there have been such frequent changes in the rules of the service that it is by no means easy to understand them, or to be sure that the system under which you enlist will continue in existence many years.

The Navy.—With reference to the Royal Navy, there are, I am glad to say, a certain number of young Englishmen who have an innate love of the sea; and the medical charge of one of the splendid crews of some of our magnificent vessels is a post any man might be proud to accept. The service is poorly paid, but I must say I would rather see a relative of my own showing a disposition to enter the navy than to settle down at once to work in this country. I should expect him to get tired of the sea in a few years, but in the mean time he will have seen something of the world, and the discipline and habits of subordination he had learnt on board ship would be of lasting benefit to him. I think some of you could hardly do better than enter the Royal Navy, and after a short service retire, taking up a resident medical officer's appointment for twelve months in this or some other general hospital before finally settling down to practice in this country or in some of our colonies. You will have opportunities of gathering information regarding the advantages offered to English practitioners in distant parts of the world during your naval career.

In conclusion, I am convinced that with reasonable abilities, ordinary forethought in the selection of your future sphere of action, and steady, persevering industry, you may be certain of fair success, and this end may unquestionably be attained without there being the slightest necessity for you to sacrifice a particle of honour or self-respect in the course of your professional career. The public require, and are quite prepared to remunerate, skill and good work on the part of their medical attendant. It will be your own fault if you cannot satisfy them, and so reap the just reward of your labour in a profession of which you may be proud, and which is becoming more scientific, and increasing in influence, through the downright hard work, intelligence, and high moral character of its members.

PRESENTATIONS.—Mr. John Reid, L.F.P.S. Glas., has been presented with a handsome marble dining-room clock, with bronze figures of Newton and Milton, inscribed, "Presented to John Reid, Esq., R.N., by Sir Peter Coats, Chairman of the Directors of the West of Scotland Convalescent Seaside Homes, Dunoon, in appreciation of his valuable services as consulting surgeon for nine years. September, 1878."—On the occasion of Mr. Arthur Orwin lately resigning the post of resident surgeon to the Guest Hospital, Dudley (an office he had held for over four years), the honorary medical staff presented him with a handsomely bound copy of Heath's "Operative Surgery"; the secretary, matron, and nurses with a massive dining-room timepiece; and personal friends in the district with a gold lever watch and a photographic album.

Abstracts
OF
INTRODUCTORY LECTURES
DELIVERED AT THE
MEDICAL SCHOOLS OF LONDON
AT THE
Opening of the Session 1878-79.

CHARING-CROSS HOSPITAL.

INTRODUCTORY ADDRESS BY DR. J. PEARSON IRVINE.

THE lecturer alluded to the growing prosperity of the hospital, and attributed this success as much to the students as to the teachers. Holding this view, he heartily welcomed the freshmen, and urged them by their efforts to advance the fame of their *alma mater*. He then referred to the trying nature of the study of medicine, but believed that in the difficulties of the study its greatest charm was to be found. Even the accumulation of the dryest of dry facts, such as those of minute anatomy or botany, was a source of pleasure if the student remembered that he was storing up that from which not only memory but reason would draw in time all the more freely. The mind's opportunities came with difficulties, and facts and reasoning in the case of most men were inseparable. So in the accumulation of "dry" details the student should train his mind to look upon them scientifically. Sometimes the difficulties became a source of danger from the pleasure they yielded, for they enticed the brilliant mind to wander into the solution of difficult problems, to the neglect of facts. In such a case the guidance of the teacher became valuable. The solution of great truths was often the work—nay, always the work—of generations; and the individual who finally worked out a great problem in science must have laboured through all facts, have toiled over wastes partly cleared, and marched with careful steps over lands where pitfalls were still numerous. The very errors of earnest workers guided such men. All their difficulties were akin to those of the student of medicine, who should look upon himself in the light of an original worker, who has to gather together facts and reason upon them. The lecturer then alluded to one particular difficulty—the number of subjects of study. The difficulty was not so terrible as it looked. The division made the mastery of facts easier, and induced the student to inquire into the interdependence of the various sections, and to reason on the relationship which apparently widely different subjects had to one another. Many leading scientific men had urged that the student was over-burdened, but it was remarkable that those who held the strongest views on this point were not in the actual practice of medicine, and the fact remained that a medical man was expected by the public to know all branches of science which had the least bearing on medicine, and that success often depended as much on such side-knowledge as on a knowledge of the healing art. Nor was any man likely to be less sound as a practitioner because his mind was widened by the study of extraneous subjects; and certainly the neglect of any branch of study was a great mistake on the part of the student, who is too apt to glide away into special lines of study almost at the very beginning of his career as a student. No one has a right to practise even the recognised specialisms unless he has given attention to the all-round study of his profession. A student ought to pursue the subjects of his aversion; what he has a predilection for there is no fear of his neglecting. Because students allow themselves to drift away into particular lines of study, we have constantly cropping up some new excrescence, which flourishes and pays under the name of a "specialty," and yet which every well and properly educated man is able to meet as well, and frequently better, than the "specialists" themselves. It is urged that men cannot master all the subjects put before them. This is true only to a certain extent, and the fact remains that in the ordinary exercise of the profession the vast majority must require a general and not a special knowledge of medicine and surgery.

ST. GEORGE'S HOSPITAL.

INTRODUCTORY ADDRESS BY DR. WHIPHAM.

DR. WHIPHAM commenced his address by alluding briefly to the loss which the school had sustained by the death of Dr. Noad, F.R.S., who had been connected with it in the capacity of lecturer on Chemistry for upwards of a quarter of a century, and who died shortly before the commencement of the past medical year. The lecturer further expressed the deep regret felt by himself and his colleagues at the death of two most promising students — Harry Douglas Mackay and James Thomason Hay.

The attention of the audience was then called to the changes which had occurred in the hospital staff during the past twelve months. Mr. Henry Lee had resigned his post of surgeon, and had been promoted to the rank of consulting surgeon. But amid the regrets felt by all connected with the institution at the loss of Mr. Lee's services in an active capacity, one source of consolation was to be found in the fact that the school and hospital had secured their reputation by the election of Mr. E. C. Stirling as assistant-surgeon.

The lecturer then proceeded to a discussion of the advantages or otherwise which must result from the prevalence of "specialism." He showed that to a certain extent specialism must exist—that it was an offspring of the great law of division of labour; and he briefly traced its origin in the vegetable and animal kingdoms, pointing out the advantages derived by the human race from the cultivation of certain substances existing in vegetables, and illustrating the assistance man obtains by the education of the dog to the performance of special duties, as shown by Darwin.

But while congratulating man on the marvellous modifications which have been effected in the works of nature by his instrumentality and for his own profit and pleasure, it is well to bear in mind certain disadvantages resulting from a system which affects creatures beneath him in the social scale, and also increases man's own responsibility. For instance, he has rendered many species of the canine race entirely dependent upon him for their existence. True the hound and setter have resulted from a prolonged system of cultivation and selection, but the greyhound is equally the offspring of these processes, and in this species the sense of smell is so ill-developed that the animal in its ordinary condition of life would in all probability be unable to hunt its prey.

Without, however, contesting man's right to convert to his own use all creatures under his dominion, the argument may be employed against man's treatment of himself. Education in its proper sense includes the cultivation both of mind and body, and any system which tends to develop one at the expense of the other is faulty. The point for consideration is, then, whether man's efforts at development to the greatest possible degree of his own brain has been attended with success. Has he, in his own case, as in his cultivation of the lower animals, fallen into the error of so prosecuting his mental culture that some one or more of its attributes have been brought prominently forward, while others of equal importance have, perforce, remained in the background. In other words, is the tendency of modern education in the medical profession directed unduly to the encouragement of specialties? A doubt was expressed whether, even in the case of the lower animals, the cultivation of one special attribute is judicious, and whether it would not have been better for the animal itself, and at the same time quite as advantageous to man, if he had, as far as possible, encouraged in the same individual the development of all its more useful instincts. In man's case, however, no such doubt can exist; his education should be as comprehensive as possible. He is destined to be, not an advocate of any one line of thought or action, but a citizen of the world; to become, like the working bee, a labourer for the common weal in the great hive of humanity. The human intellect is finite, and knowledge is now so extensive that it is beyond the power of one individual to master a tithe of it. Man in consequence must be to a great extent a specialist—he must be content to devote himself to a few subjects, and to aim at rendering his knowledge of them as perfect as may be. But is man justified in still further limiting his sphere of usefulness by adopting a specialty in the profession of his choice? Deprecating any intention to pass judgment on those members of the medical or other professions who have devoted many years of patient

toil to the careful study of special branches, the lecturer raised the question as to whether the public is better served by the existence of professors of specialties. He considered that the answer of the laity would be in the affirmative, and for this reason, that they would argue that a man who devotes his whole time to one subject must of necessity know more about it than others, and that, therefore, the public seek the specialists in their need. But the public fail to appreciate the fact that no one portion of the animal economy can be properly studied without an accurate knowledge of the whole, and it is through ignorance of this that they now-a-days lean so much towards specialism.

With regard to the medical profession, it was contended that subdivision into special branches was, perhaps, more excusable than any other, by reason of the many and important collateral sciences which bear upon it. But it was strongly urged that a man, to become a specialist, ought in the first place to render his knowledge of the body as a whole as complete as possible, before attempting to limit his attention to any one part of it, more especially in the earlier part of his career.

The practice of introducing special departments into hospital schools was defended as tending to facilitate the student's labours, to economise his time, and, among other things, to familiarise him with minor points of differences which occur in various diseases, which, when grouped together, materially aid diagnosis or suggest treatment. It was further argued that men who profess medicine or surgery generally have contributed as much, or perhaps more, to the advance of science than those who have adopted specialties.

Finally, it was argued that as the practice of a specialty should be the result of an accurate knowledge of the whole, this thorough knowledge could only be attained by the most gifted; that men who possess extraordinary abilities are few in number, and therefore specialties should be confined to those few. At the same time, the condemnation of those who adopted specialties simply as a means of pecuniary gain could not be too severe, as being degrading alike to the profession and to the individual.

KING'S COLLEGE.

INTRODUCTORY ADDRESS BY PROFESSOR GARROD.

PROFESSOR A. H. GARROD, from the point of view of a biologist, took for the subject of his lecture the evolution of medicine as an art as well as a science, and the survival of the fittest to practise in the struggle for professional existence. A short review of the history of the healing art from the time of Æsculapius until that of Harvey's discovery of the circulation of the blood—the starting-point of the science of medicine—was followed by a further account of the simultaneous development of physiology and pathology, our knowledge of the extent of our present ignorance of the principles of the former damping the tendency to speculation in the latter science which was so conspicuous in our ancestors. A glance at the competition of the professions of medicine, law, engineering, &c., for the abler of our youth, and a reference to the fluctuations dependent on the varying attractions offered by each at different times, were followed by an analysis of the nature of the struggle for professional success, depending as that does on various combinations of qualities, the most prominent of which are ability, information, energy, tact, and manner. The lives of Dr. Thomas Young—the ablest man who has ever adorned the profession in this country—John Hunter, Dr. Bright, Sir Henry Halford, Sir Henry Holland, Dr. Matthew Baillie, and Dr. W. F. Chambers were given as illustrating these various qualities in different degrees, a combination of some two or three being most frequently observed. Dr. Young's want of success in both hospital and private practice was ascribed to physics, on account of its much less immature development, proving a far more attractive science in his estimation, as it has to others—Dr. Gilbert, of Colchester, and Dr. Neil Arnott, for instance—gifted in the same direction. Whom time will prove, from any collection of commencing students, to be the fittest to practise successfully is not difficult to decide after a short acquaintance; and medicine offers peculiar advantages to those embarking on it as a livelihood, in that it is not till the curriculum has terminated that the student need decide whether or no he shall aspire to the status of a pure physician or a surgeon, or content himself as a general practitioner. Also, perhaps, there is no other profession in which less capital is required for the attainment of the highest honours by those whose ambition is justified by their good qualities. As to the value to the student of medicine of an education in the older universities, the fact that among those now most eminent in London practice there are hardly any with degrees from Oxford or Cambridge proves how unessential it is; and the lecturer expressed his opinion that the details of human anatomy are far more readily to be acquired and retained before than after the age of twenty; while the many scholarships offered in the universities, without any limitation as to age, open out to successful competitors who have already completed their medical studies a far more promising career than otherwise can be obtained in many cases, at the same time that it raises the standard of biological research there reached, by giving assistance—such as is offered by the invaluable physiological laboratory at Trinity College, Cambridge—to those who are more than tyros. In conclusion, Mr. Garrod laid stress on the great value of pathology in the study of the development of the human race. It is the habit of medical men to note carefully the physical signs of disease, at the same time that, in his experience, but little attention is paid to idiosyncrasy. Ravaging epidemics, endemics, and hereditary diseases affect some constitutions rather than others; as results, developing peculiarities in the natives—the survivors—of all countries dependent in a great measure on the natural selection thus insidiously and constantly at work. The Englishman in Rome and Naples is but too likely to be attacked with fever of a typhoid stamp in the same district where the Italian enjoys perfect health on account of his being the offspring of those who in times gone by have resisted by constitutional peculiarity the malarial atmosphere. What qualities is the early death of the habitual drunkard weeding out? What phthisis? The true American of the States differs conspicuously from ourselves. How is this so? These are problems which deserve much more attention than they receive.

ST. MARY'S HOSPITAL.

INTRODUCTORY LECTURE BY DR. R. FARQUHARSON.

AFTER some introductory observations, Dr. Farquharson remarked on the difficulty felt, no doubt, by others as well as himself, of knowing precisely what line to take up. First and foremost must stand the opportunity afforded to a teacher of giving some good advice from his own reflection and experience, whilst scarcely second in the eyes of some stands the platform from the temporary elevation of which the fortunate possessor of a hobby can ventilate his views. He desired to take up the first position, and in doing so he did not think it necessary to say much about the arrangement and sequence of study, as that has been already laid down by custom, and the requirements of examining boards. He hoped, however, that one of his successors in the chair would soon be able to congratulate his audience on some limit being put to the area of examinations, as recommended by the Medical Council, and that a thorough comprehension of certain well-defined principles would be preferred to the feeble smattering over the whole range of knowledge which is the result of the present system. Nor was it necessary to dilate on preliminary education, for that was already a thing of the past, and students, whatever may have been their previous opportunities, or whatever their present "culture," must now look to the future, and put their shoulders briskly to the wheel, remembering that a little handicapping by a yard or two at the start must be counteracted by greater determination in the race.

"Only four short years stand between you and the goal of your ambition; and, amid the constant distraction of collateral work, and the preparation for examinations, it must be steadily borne in mind that the great object now is to qualify for practical success in after life. Culture and general information will matter little if we cannot do something for our patient, and if we cannot show him that we take a real interest in his case. What is often styled 'humbug' may be nothing more nor less than the art of expressing sympathy and kindly feeling, and this gift of manner, as a real curative agent, should be recommended to the careful study of all young men.

"Now, in order to acquire a real working knowledge of our profession, ward work is of first importance, and time must be made for this at all hazards; for here we see types of disease, and learn the true principles of diagnosis and treatment. It is undoubtedly a defect in the London system of medical education that no facilities exist, as in connexion with the Edinburgh dispensaries, for seeing patients at their own homes. This is, after all, the best preparation for private practice, and probably the out-patient department is the nearest substitute which we can offer here. Although this institution has come in for some rough knocks in later days—although it has been accused of pauperising the community and defrauding the profession, and injuring medical study by giving a bad example of hurry and want of care—I cannot but hope that a good deal can be said on the other side. Abuses undoubtedly do exist, but if the work is done with a due feeling of responsibility, very much may be learnt respecting the physiognomy of disease, the early symptoms of varied sickness; prescribing may be taught, and the elements of clinical tact acquired—that most valuable of gifts, which all should earnestly strive to obtain.

"Do not think that I recommend the debating society to your special attention because I happen to be the temporary occupant of its chair. I believe that a regular attendance on its meetings is in no degree a waste of time. You will there learn to overcome the bewildering influence of the erect posture on your faculties of speech, you will measure your powers against those of others, and will see how your knowledge and homespun theories stand the always friendly, if sometimes apparently rough, handling of fellow-debaters. One evening in the fortnight is not too much to give to all this, and when there I would strongly advise you to be no silent member, but talk as much as you can—in season, if possible, but rather out of season than not at all, until you can think as freely on your legs as in your arm-chair, and can express your thoughts with facility and freedom. Custom also, as well as expediency, demands that I should say a word on athletics. Now the only necessary caution seems to be that you should keep them in their place as servants, and never allow them to assume the master's upper-hand. 'The first requisite for success in life is to be a good animal'; and a too exclusive devotion to mental training will only make you narrow-chested, if, possibly, broad-minded, dyspeptics, unable to take your proper place in the race for life for lack of physical power, and breaking down early from a sheer wearing out of an ill-developed and ill-exercised machinery. Make diligent use of the following good qualities: Industry, without which you will not be able to enter the profession at all; discipline and order; loyalty to your school and your teachers and yourselves; nor should *esprit de corps* be forgotten, that freemasonry between men sitting on the same benches at widely differing times—that conviction that your own school is second to none, and that it is your pride and duty to uphold its interests and advance its reputation in every possible way.

"Now, perhaps, it may be thought, from our present prosperity, that we have been established many years, but only eight-and-twenty years ago the site now so worthily occupied by our hospital was in possession of the Grand Junction Waterworks Basin. In 1851 the late Prince Consort laid the foundation stone, and in 1854 the school was formally inaugurated by an introductory address by Dr. (now Sir) James Alderson; and in considering the many difficulties which beset our path at that time, we shall never, I hope, forget the generous and unremitting energy of Mr. Samuel Lane, the founder of our museum, and the zeal and devotion which our first man-at-the-wheel, Mr. Spencer Smith, threw into his office of Dean. Of the original staff, four happily remain among us, and it has struck me that I might usefully employ myself by trying, in imitation of Sir James Paget, to trace the subsequent career of the various students who have been educated within these walls. Now, 4 we are glad to see sitting beside me here as members of our staff, 100 are practising in London, 168 in the country, 15 abroad, whilst 4 have joined the navy, 22 the army, and 14 the Indian service; 29 are dead, 15 have given up medicine, and 53 cannot be traced—a large proportion, perhaps, you may say; but I think, on the whole, that the calculation is satisfactory, and that we have turned out into the world a very useful addition to the ranks of the profession.

"And now, gentlemen, if we could look forward a few years, we would find you fairly afloat, qualified men, possessed, perhaps, of that future panacea for all the ills of medical humanity—the diploma of the Conjoint Board. Some of you may aim at consulting practice, but the large majority will join the rank and file, and it is not uninteresting to try and calculate what your chances of success are likely to be. Let us see what statistics tell us. The population of the United Kingdom of England and Wales in 1871, the last census year, was 22,712,286; out of this 108,296 were paupers, and deducting those in receipt of gratuitous relief at our hospitals and dispensaries, there remain 19,000,000 in a position to pay their doctors, and the total number of those competing for their suffrages is 10,000. Or, to come nearer home, in London we have 3,254,200 inhabitants, about 1,000,000 of whom attend our public institutions, and 3827 doctors. All this does not look specially promising, but we shall find rivalry in these overcrowded days in all ranks of life, and in medicine our prospects are quite as good as in any other. But, in case we think these probabilities not very cheering, we have the Public Services to fall back upon, with their regular duties, fixed income, and supposed social advantages. Recent sad events have, however, so shaken public confidence in the stability of our ironclads that the navy cannot but be looked upon as a service of danger; and the loss of the regimental system has destroyed the social amenities of the Army Medical Department as much as the frequent alteration of Warrants has destroyed all public confidence in its administration. Civil practice will, therefore, always hold its own against all competition, and you and I, who form part of its rank and file, must remember that its dignity and position are pretty much what we can make for ourselves, and that the respectability of the entire mass depends on the good work and good conduct of its component parts. Place a high ideal before you, and act up to it as best you can, and enthroned, as our profession always must be, in the first place in our affections, do not neglect to cultivate some other favourite occupation, some hobby, which may serve you in good stead against the time when sickness or other causes compel you to retire from active life. Do not forget, either, that every member of a civilised community is expected to do something to advance its interests, and we medical men have many problems set before us to unravel. The processes of infection, the incubative periods of disease, their first, earliest symptoms, the action of drugs, and, above all, the fuller development of sanitary science, are still opened out before us, and some of you may, I hope, be pioneers of science in these and many other directions.

"In our intercourse with the general public do not let us unnecessarily parade our knowledge, but, at the same time, remember that scientific questions are now exercising so wide an influence that we must often be called upon to act as referees or to give information; and it is important that our own views should be clear and well defined. This is a grave and high responsibility, and we must see that we use it for the protection and welfare of society, and for the reputation of the noble calling with which we have thrown in our lot.

"So much, then, for our duty to society, a favourite theme; but we do not hear so much of the other side—the duty of society towards us. Now, in the first place, I hold most decidedly that some portion of the revenues of every solvent hospital should be devoted to the payment of the medical staff, who are really the mainstay of the institution. But if this be not practicable, the real workers of the place might at least obtain the compliment of an honorary seat at the board of governors. How strange and almost grotesque it seems that whilst anyone who can raise the requisite number of guineas can be admitted within the list the, medical staff, the real working element of the charity, are obliged to put their own hands in their pockets before they can make their voices heard within the committee of management. But if these payments cannot be spared, we may at least expect to meet with that cordial gratitude and deference to our expressed opinions, which may be even more valuable than pecuniary recompense. Human nature must be human nature, I suppose; but is it really necessary that our most conscientious suggestions for the relief of suffering humanity should be too often received in vestry halls, and governors' courts, and boards of guardians, with carping criticism and ill-concealed sneers! We will bear a good deal of grumbling, and, perhaps, join the chorus, about our social position, but here society is hardly to blame. So long as we retail our own medicines, and so long as the

'open surgery' is so suspiciously like a grocer's shop, so long must we expect to fall short of the altitude of deference so freely allowed to other professions.

"We must expect much annoyance from the special favour too often shown to quacks and irregular practitioners of all sorts. We will be reproached with the marvellous cures made by bone-setters, we will be accused of trades-unionism and jealousy if we decline to meet homœopathists in consultation, or refuse to give ready credence to the replacement of a dislocated vertebra, or the marvellous cures of cancer effected at the Sangrado Hospital. Under these circumstances the *argumentum ad hominem* is very efficacious, and we have only to ask the clergyman who inveighs against our narrow-minded bigotry how often he opens his pulpit to his Methodist brother, or the lawyer why he does not avail himself of the undoubted forensic abilities of Dr. Kenealy or Mr. Edwin James? Are we to be the only corporate body debarred from any code of professional morality, or social etiquette, or suspected of interested motives if we venture to denounce the keen cunning which now, as ever, prays upon the weaknesses and follies of mankind?"

Dr. Farquharson concluded by wishing his hearers happy student days, leading up into a bright and prosperous career.

MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY DR. ARTHUR W. EDIS.

PREMISING that the medical journals, in their "Students' Numbers," and "Addresses to Students," had taken the place largely of the introductory lectures of bygone times, Dr. Edis, after briefly referring to the aims of rational medicine, the objects and method of education, and other matters interesting to the student, proceeded to the consideration of several topics relating to midwifery and diseases of women and children of importance alike to the profession and to the public.

The fundamental principle of sanitary method being the discrimination of disease, it followed that the fundamental principle of sanitary practice was the discrimination of conditions under which disease prevailed. Taking midwifery in its more extended signification as comprehending a knowledge of all the diseases to which the female body is more particularly liable, including the direction and management of women from the commencement of the pregnant to the conclusion of the puerperal state, Dr. Edis proceeded to point out how much the study of the subject was neglected at the present time. Of all the medical studies that have been objects of scientific research or of practical inquiry, none has met with a more chilling indifference, none has been treated with more unmerited contempt than midwifery. Two circumstances that had contributed more than any other to depreciate the study of it were—first, the imagined facility with which it might be practised; and, secondly, the want of any distinct obstetric board or centre of education. In the College of Surgeons the spirit of Sir Anthony Carlisle still seemed to rule, who said that the midwifery of the country might be undertaken by the wives of the general practitioners. The Council not only ignored the subject to all intents and purposes—a mere certificate being all the guarantee required of knowledge in this department, there being no examiner even to ask a question upon it,—but made the practice of midwifery a disqualification for its honours, although the diploma granted by them confers the right to practise every branch of the profession. The College of Physicians alone had had the grace to accord an honourable place to obstetrics, and was doing the further public service of correcting to a certain extent the evil wrought by the College of Surgeons. The triumph of modern surgery was its conservatism, that of medicine its preventive aspect, and not until midwifery had been placed on a corresponding footing could we expect to reap the advantages that an intelligent consideration of the question would ensure. It could not be doubted that many valuable lives might be saved and much suffering averted if midwifery only received the attention it deserved at the hand of the Medical Council, as well as of the medical student. What should we think of a trainer who allowed a pedestrian, a sculler, a runner, or an athlete to undertake a feat that would tax his utmost efforts, necessitating stamina, strength, speed, skill, and endurance, without many preceding months' or weeks' training and supervision? And yet we allow the wives and mothers entrusted to our care to go on in ignorance of the necessity of strict attention to hygienic and physiological laws, in order that they may with safety bring forth their offspring. "*Principiis obsta*" should be our motto. If only we were entrusted with the management of the pregnant woman, many a case of serious uterine mischief would be discovered and remedied before the evil had been allowed to go on to a dangerous extent. Such cases as retroversion of the gravid uterus, and impaction in the pelvis, which are of frequent occurrence, might easily be remedied if only detected at an early period. Miscarriages were another form of evil that might frequently be averted if only recognised in time. Extra-uterine gestation was too frequently overlooked until death was imminent from rupture of the cyst. Had watchful supervision been exercised such a severe calamity might have been anticipated. Placenta prævia, one of the direst accidents the pregnant woman is liable to, is too often allowed to go on until the patient is wellnigh blanched by hæmorrhage before medical assistance is sought for and assistance rendered. No pregnant female, where the least deformity of the skeleton, or even suspicion of it, existed, should be allowed to go to the full term of pregnancy without having undergone a careful examination as to the capacity of her pelvis, so that induction of premature labour might have been brought on had it been deemed necessary. In place of waiting until the consciousness be impaired, and the patient be writhing in the agonies of a convulsive paroxysm, suffering from eclampsia, we ought to have had an opportunity of detecting the earliest symptom, and averting the coming storm. External manipulation of the abdomen would enable us to detect transverse presentations, and the fact of there being twins before impaction of the shoulder at the brim on the one hand, or expulsion of the first fœtus on the other. If the science as well as the art of midwifery were better taught and better understood we should less frequently hear of cases of powerless labour, flooding after delivery, and still-born children. It is a question whether even that terrible scourge of the lying-in room, puerperal fever, might not frequently be prevented by rendering timely assistance in case of tedious labour, and thus preventing the uterus being so worn out that it could not even contract firmly when parturition was accomplished, a clot being thus allowed to form in the interior; decomposition of this rapidly ensued without let or hindrance from any antiseptic injections or manual interference, and the so-called autogenetic febrile disturbance was inevitably produced. In the last annual report of the Registrar-General for 1876 no less than 4142 mothers succumbed during that year to the accidents and diseases incidental to childbirth, not including 1034 who died after childbearing from various diseases not referred either to childbirth or metria in the abstract. The question of Government caring nothing for the education of midwives, although some 687,000 of the poorer classes are annually dependent for help in their time of trial upon this too often ignorant, drunken, and incapable class, the self-dubbed midwife, a number of whom are a scandal and a reproach to any civilised community, was then discussed, and suggestions made as to their improvement. The inadequate accommodation for diseases of women in our metropolitan hospitals, and the imperfect opportunity the student possessed for learning their special ailments, were noted and regretted. Out of a total of 4280 beds there were only 155 beds available for this specialty, a proportion of one bed for every 12,000 of the female population of London. The excessive infant mortality, 146 in the 1000 under one year of age, making a total of 130,000 annually, was commented on, and the importance of studying children's diseases insisted on.

Dr. Edis concluded by giving a few friendly words of advice and exhortation to the students generally.

ST. THOMAS'S HOSPITAL.

INTRODUCTORY LECTURE BY MR. EDWARD NETTLESHIP.

THE lecture was devoted to specialism in medicine, chiefly as illustrated by ophthalmic surgery. Three stages might be recognised in medical specialism: the first or empirical stage, based on the need for special dexterity in certain operations; the second, or encyclopædic, in which the practice of eye surgery was joined with general surgery, and the special branches of practice were in the hands of the best surgeons of the day who were but seldom specialists (16th,

17th, and 18th centuries). The continued action of the causes which produced this stage have led in the last half century to a great increase of specialism and specialists, the progress of knowledge and multiplication of resources having made it impossible for any but men of the highest ability to cultivate thoroughly the whole field of modern medicine (third stage). However much we may regret this modern subdivision of labour as fostering narrow habits and exclusive views, and as tending to an over-estimation of the importance of trivial complaints, we must accept it as an essential condition for most of us if we wish to attempt thorough work.

Some points in regard to the future of specialism were then touched upon, and some of its weak points mentioned. Attention was called to the parallel institutions of special hospitals and special departments at general hospitals. The special departments, having arisen to meet the needs of medical education, will increase in importance. But the lecturer thought that the usefulness of the special hospitals would slowly change its ground, and in the end be lessened; they should aim at becoming centres to which the specialists from the general hospitals should be attached, and where they would work side by side with mutual advantage. If the special and general hospitals could co-operate, medical education and scientific work would both gain, and though the number of medical workers need not be reduced, any tendency to excessive competition for hospital patients would be checked.

Mr. Nettleship next inquired how a special branch of practice should be taken up? The longer a man can keep his hold on a wide field of practice the better for his after value as a specialist, provided he do not endanger the first object of specialism, thorough adeptness in its intricacies. The earlier a man becomes a pure specialist the greater the risk that he will lose in *breadth* of knowledge and judgment what he gains by *concentration*. The need for specialists more than for others of general medical culture, whether by means of reading, of the Medical Societies, or of co-operation with colleagues, was strongly insisted upon, in order that the mind might be kept open, though the sphere of industry was narrow. It was held that the work of the medical man contains more humanising influences than the everyday work of almost any other occupation, and that *general* culture, however attractive, was on this account less imperative for ordinary medical men and ordinary specialists than the need of trying to keep up in some degree with the march of their own profession. Pluralism in medical appointments was for specialists one of the most effectual checks to isolation and narrowness, always provided that the whole strength be not taken up in the mere routine of the work. And, as Mr. Nettleship here pointed out, although specialism will certainly increase, yet there are many degrees of specialism, and it by no means follows, in the case, at any rate, of the less intricate special branches, that a man who acquires reputation for some one class of maladies need relinquish the charge of other cases. Routine was an enemy to be very carefully guarded against, and one to whose attacks the specialist is particularly open, because his work is limited in area, and his responsibility (compared with that of the general physician and surgeon) light.

Another morbid tendency of specialism was to rely too much on local treatment, and especially to drift into the needless employment of strong local remedies needing skilful use, when weaker ones applied by the patient would do as well. Mr. Nettleship deprecated the performance of serious and delicate operations on the eye by those whose opportunities of treating eye cases, and of habitually handling the eye, were few and far between; though eye operations often looked easy, were soon over, and involved no risk to life, the margin allowable for harmless error in their performance was very narrow. But it was the duty of all students who could possibly afford the time to learn the use of the ophthalmoscope (and of other special aids to diagnosis), the use of which could never lead to anything but good for the patient. Such instruments of research were, however (whether employed for the elucidation of general or of merely local disease), always to be used in general practice as accessions to, not as substitutes for, the more ordinary means of diagnosis. In regard to the more difficult parts of the special subjects, students who are only able to give a short time to their study should aim less at knowing how to cure a particular case than at learning how to distinguish serious from trivial cases—cases which they may, when in general practice, safely treat, from those which they ought unhesitatingly and at once to transfer to an expert.

The rest of the lecture was taken up by some remarks on teaching; the impossibility for students of getting too much clinical and demonstrational teaching, and the very sparing use they should make of such teaching as has no other object than success in examinations. Examinations were a means, not the end, and no man should go in for the higher examinations unless he found he could do so without risking the thoroughness of his hospital clinical work.

UNIVERSITY COLLEGE.

INTRODUCTORY ADDRESS BY PROFESSOR RAY LANKESTER.

PROFESSOR LANKESTER took as the subject of his address the "Relations of Universities to Medicine." He began by justifying his position there as a representative of medical education on the ground that, though not a member of the medical profession, he yet, as a zoologist, belonged to the medical faculty of the College. It was one of the distinctive features of the medical faculty of a university that it included professors of all the diverse branches of science on which medicine depended. It was the business of the profession of medicine not only to apply knowledge to the alleviation of human suffering, but to produce new knowledge of a kind which could be applied in that way. This second duty of medicine could only be accomplished by means of endowed medical faculties. Hence, the great importance to the medical profession of universities. At the end of the last century Oxford and Cambridge had so entirely neglected their medical faculties that there were very few students of medicine. In London there were a few schools of anatomy, but medical men were almost entirely trained as apprentices. Meanwhile, the great Scotch University of Edinburgh had kept up the true tradition of a university, and, like fifty continental universities, taught medicine and supported a staff of professors in sciences ancillary to medicine. The neglect of the English universities and the fact that they were entirely handed over to clerics led to the foundation in London, fifty years ago, of the college in which he now was speaking. For the first time a course of medical study such as a medical faculty can offer was opened to English students,—chemistry, physics, zoology, botany, anatomy, physiology, surgery, medicine, pathology, midwifery, and forensic medicine were systematically taught by men of great eminence and reputation. As a result the students from all the hospitals of London flocked here, and there was a larger attendance than there has been ever since; for at once the medical men of the London hospitals started medical faculties similar to that started here, and now the students were divided between eleven schools. Germany, with 50,000,000 inhabitants, has twenty-one medical faculties; London, with 4,000,000, has eleven. The London faculties differ from German, however, in the fact that none of them, not even that first founded, have any money to support them, nor can they confer degrees. The possession of rich endowments and the right of conferring degrees are the special distinctions of the old universities. In Germany these rich universities have each their faculty of medicine by the side of that of theology and law. In England the old universities of Oxford and Cambridge, which were founded like their sisters in Germany on the model of the University of Paris, and possessed the three faculties of theology, law, and medicine, have allowed their medical faculty to decay. Students sometimes wonder why most of the names in their text-books are those of Germans. The reason is simple enough. The German State Governments expend £600,000 annually on the salaries, laboratories, and libraries of their twenty-one universities. At least half of this sum is employed for the support of sciences allied to medicine. We, in common with the rest of mankind, benefit by the researches of Germany; but we do next to nothing in return. The reason is that the endowments in the English universities and some elsewhere have been most grossly abused and turned from their proper objects. In Germany the Government has taken the endowments, but has added to them and administered them for the benefit of knowledge and education, and every year greater liberality is shown to the professors. The professor of pathology at Strasburg was offered £1000 a year to move to Vienna, but the Prussian Government, anxious to keep him,

offered to build a new set of laboratories for him in Strasburg if he would stop and to raise his salary. The new pathological laboratory will cost £50,000. On the other hand the Government of England, 200 years ago, handed over the colleges and the Universities of Oxford and Cambridge to the clergy of the Established Church, and the consequence has been that these institutions have ceased to be universities in anything but name. Only the theological faculty is rich and flourishing; law and medicine have been stifled. At the same time, the few professors of law and medicine were encouraged to convert their offices into sinecures, and then, when the students had been kept out and the professors had ceased to lecture, the endowments of medicine were handed over to other purposes. There is not at the present day a single student of medicine at Oxford. The Royal Commissioners of 1854 endeavoured to start a school of scientific studies preliminary to medicine, but failed because they still left the control of the professors in the hands of the clerical majority, and did not properly constitute an independent medical faculty. The Commissioners now sitting have definitely refused to resuscitate the medical faculty of Oxford, although a petition signed by a large number of the professors and tutors residing in Oxford and urging them to do so had been presented to them. The list of endowments belonging to the suppressed medical faculty of Oxford is very considerable, but medicine is entitled besides to a full share of the ancient college endowments which have been quite wantonly usurped by the clerical profession. The Regius Professorship of Medicine founded by Henry VIII. still exists; it is now worth £500 a year. Its present holder, Dr. Acland, gives no lectures or other teaching. Lord Lichfield's Professorship of Clinical Medicine is also held by the same gentleman; this office is worth £200 a year, but no lectures are given by him in that capacity. In the last century Mr. Matthew Lee entrusted Christchurch with a sum of money to pay a reader in human anatomy and to buy subjects. The reader is no longer required to carry out the founder's intentions. The same is true of the Aldrichian Professorship of Medicine. The most ancient medical endowment in Oxford is that of Linacre, the founder of the College of Physicians. The Fellows of Merton College had the care of this, and for some 300 years spent the money on themselves. In 1854 it was made by the Royal Commission the basis of a professorship of physiology, but physiology is not taught by the present Linacre professor, who, in the recent agitation concerning vivisection, took a part hostile to the interests of those engaged in those experiments on animals which are the foundation of medical practice. The noblest medical benefactor of Oxford was Dr. John Radcliffe. He himself never studied medicine except in Oxford. After graduating M.D. he was persecuted and turned out of his lodgings by the clerical head of his college (Lincoln). He died in 1714, and left a large property to trustees for the purpose of improving the opportunities of medical study in Oxford. The Radcliffe Infirmary was thus built and a splendid medical library formed, while stipends were assigned to travelling Fellows who should learn on the Continent of Europe what Oxford failed to teach. Happily, Radcliffe, whose name we should mention with deep gratitude, left his property not to a college nor to the university, but to independent trustees. Oxford was not considered in former days too small a city to supply cases for the study of a medical faculty; at present it is more populous than several German towns which possess celebrated and active medical faculties, such as Hiedelberg, Bonn, Göttingen, and Jena. Cambridge had never sunk so low as Oxford now has done, and at the present time is likely to be brought into the right path by the strenuous efforts of Professors Humphry and Foster. But it is not only in depriving medicine of the endowments which belong to her that our universities have done wrong, it is owing to their neglect of medical sciences that it was possible for the Legislature to make those provisions against physiological experiments which were demanded by ignorant and weak-minded people, and have made us necessarily dependent on the physiologists of Germany and France for the knowledge necessary for the progress of medicine. A noble bequest to medicine had existed in London, but had been made away with in the most shameless and fraudulent manner. This was Sir Thomas Gresham's bequest, dating from 1596. The site of the house and garden which he left for his six professors was now worth three millions of money. The trustees, who were the Corporation of London and the Mercers' Company, had fraudulently disposed of this site in the last century to the Crown, and were protected by Act of Parliament from the consequences of their outrage. Gresham, whose college might have become one of the noblest universities in Europe, had been cruelly betrayed by his fellow-citizens. Gresham's professors included one of medicine. Consequently, medicine has a claim on the city of London for £500,000. The trustees have the effrontery at the present day to continue to nominate the Gresham professors and to pay them each the magnificent sum of £100 annually, thus making a hollow pretence of carrying out the designs of the founder. Whether money for the purpose be obtained from such a source as this or from some other, such as a Government grant, there seems to be great need at the present time for the union of all the eleven medical schools of London under one central, well-supported, amply endowed medical faculty. The independent teaching of clinical medicine and surgery in the wards of the hospitals might continue, but in order that research might be carried out and students taught by men engaged in research, an endowed staff of professors was necessary. Such a staff might be connected with the University of London, which would then become a true university, and might carry on its work in London as does the University of Edinburgh in the northern capital.

CONCERNING THE INFLUENCE OF PERSPIRATION ON THE FEBRILE TEMPERATURE.

By SYDNEY RINGER, M.D.,
PROFESSOR OF MEDICINE AT UNIVERSITY COLLEGE.

I AM induced to publish these experiments, as they throw some light on the cause of the morbid elevation of the temperature in fever. This preternatural heat of the body has been accounted for in different ways. Some ascribe it to the dry skin in fever, whereby less heat is lost by evaporation; whilst the production of heat is maintained, the excess accumulates in the body and raises its temperature to fever height. If the production of heat remains the same whilst less is lost by evaporation, heat of course must to some extent accumulate in the body, and so raise its temperature; but this accumulation of heat, as I shall shortly show, plays a very insignificant part in the generation of fever.

According to another, and, as I believe, the correct view, by far the greater part of the preternatural heat of fever is due to increased formation of heat by increased combustion of the tissues, especially the nitrogenous tissues. During fever the quantity of urea is largely increased, and this is generally considered to depend on general combustion of the nitrogenous tissues. Some have demurred to this conclusion, maintaining that the increase of urea is due to the retrograde metamorphosis of morbid products formed by the disease, as the exudation into the lungs of pneumonia. This explanation, however, fails altogether to explain the increase of urea in an attack of ague, where no morbid products are formed. Some years ago I showed that during a paroxysm of ague the urea is increased in proportion to the height and duration of the fever, so that given the height of the fever we can approximately calculate the increase in the urea; and, *vice versâ*, given the increase of urea, we can ascertain the height of the fever. The increase of the urea begins directly the fever begins, and declines with its decline. This increase in the urea must be ascribed to increased combustion of nitrogenous tissue; and as the increase of urea is in proportion to the severity of the fever, it is fair to conclude that this increased combustion causes the fever.

A case of rheumatic fever with high temperature but with freely perspiring skin conclusively proves that fever is not simply due to accumulation of heat through loss of evaporation from a dry skin. In other febrile diseases, too, as in typhoid fever, especially where there is considerable exhaustion, the skin may be occasionally moist, and even soaked, whilst the temperature is very high.

I will now adduce additional evidence to show how little

share the dry skin plays in the production of the febrile temperature. Two patients were admitted under my care with ague. I determined to excite profuse perspiration before, or just before, the commencement of the febrile paroxysm, and to watch what effect this free perspiration might have on the high temperature.

The first patient suffered from quotidian ague, and his temperature rose in an untreated paroxysm to 105° and 106° F. Just before the onset of an attack, I gave him half a grain of pilocarpine, which in twenty minutes produced copious perspiration; yet, in spite of this, the temperature rose six degrees, to 104·4°, and the fit lasted as long as on previous days, the temperature falling short of the attacks on the previous days by about a degree. As in ague, the untreated fits often differ to a greater degree than this, it is doubtful if even this slight diminution was due to the jaborandi. I may mention that the sweating produced by the jaborandi had very little influence on the shivering, and blueness of the lips, nose, and extremities.

The next patient suffered from irregular tertian fever caught in Florida. In an untreated attack, on August 1st, his temperature rose to 104·8°. On Aug. 4th the rigor began at 3.20, his temperature at that time standing at 101° F., conforming to the rule with ague, that the temperature rises one or two degrees before the rigor begins. Five minutes after the beginning of the rigor, Mr. Neale, my resident assistant, administered hypodermically a quarter of a grain of pilocarpine. In a quarter of an hour perspiration began, the temperature standing at this time at 102·6°. The perspiration soon became profuse, and yet at 4.30, fifty minutes after the commencement of free perspiration, the temperature stood at 105·5°, and continued above 105° till 5.30 P.M., when the fever began to decline, and the temperature became normal between 1 and 3 A.M. on the following morning, the fit lasting more than ten hours. On Aug. 7th he had a fit which was untreated. On Aug. 10th he had another attack. At 3.20 his temperature was 101·8°. At 3.30 Mr. Neale gave him a hypodermic injection containing half a grain of pilocarpine. At 3.45 he was perspiring very freely, and his temperature marked 102·1°. At 5.30 the temperature was 105°, and subsequently rose to 105·2°. It remained at or above 105° till 8 P.M., and then fell, becoming normal at 4 the following morning; the fit, therefore, lasted over twelve hours. On August 13th he had another attack. At 5 P.M. his temperature was 101°. At 5.30 half a grain of pilocarpine was administered hypodermically. At 5.45 he was sweating, and his temperature then marked 103°. At 7.15 his temperature stood at 105·4°, and so remained till 8 P.M., and after this time it fell, becoming normal between 3 and 5 the following morning. In this case the attack lasted more than ten hours.

In these experiments, then, the temperature in an untreated attack rose to 104·8°. In the three fits treated with pilocarpine, which produced copious perspiration, the temperature reached respectively 105·6°, 105·2°, and 105·4°, the fits lasting, respectively, ten, twelve, and ten hours. We may therefore fairly conclude that the free perspiration had a very insignificant influence on the febrile temperature, and the increased heat cannot be explained by its accumulation owing to a dry skin, but must be due to increased production of heat from increased combustion.

In his interesting and suggestive lectures on Cardiac Depressants, Dr. Fothergill explains the effect of aconite and tartar emetic on the febrile temperature by their changing the dry to a moist perspiring skin, and so increasing the loss of body heat by increasing radiation and evaporation. As I have already said, by making a dry skin moist we must of course abstract a certain amount of heat by evaporation, and to this extent cool the patient; but the experiments given in this paper show, I think, how insignificant a part the loss of heat, induced in this way, plays in causing that great fall of temperature so often produced by aconite or tartar emetic. Other reasons may be adduced in support of the same conclusion.

1. Whenever aconite promotes perspiration, a proportionate reduction of temperature ought to take place in all diseases; but whilst, in many cases, as in tonsillitis, &c., the fall of temperature is considerable, in other forms of fever, though the perspiration may be very free, yet scarcely any, or even no fall of the temperature takes place: for instance, in many cases of erysipelas, pneumonia, pleurisy, and especially in the specific fevers, the fever continues unchecked.

2. We, not uncommonly, find that aconite quickly reduces temperature without promoting sweating, especially with children, in whom this drug in many instances fails to produce it.

3. Sometimes we see cases like the following: In typhoid or scarlet fever a patient with a hot dry skin, to whom we give aconite, becomes in a few hours freely bathed with perspiration, which continues several days, and then, in spite of the drug, the skin again becomes quite dry. Now in a case like this we find that the temperature undergoes no change. It remains as high during the sweating as before giving aconite, and does not rise on the cessation of the perspiration.

4. Some years ago, in conjunction with Mr. P. Gould, in order to test the influence of perspiration on the temperature, we three times performed the following experiment:—We placed a fever patient in a hot-air bath, with the exception of the head and face. When free perspiration came on the bath was removed and the patient covered lightly with clothes, and in this state he sweated for some hours afterwards. Whilst in the hot-air bath his temperature did not rise, nor did it fall after the bath, notwithstanding the free perspiration and light clothing. If it be objected that the clothing prevented evaporation, and the consequent reduction of temperature, I may reply that these are the identical conditions under which aconite in so many instances causes so marked a fall of temperature.

Cavendish-place, W.

THE TREATMENT OF PSORIASIS BY ARSENIC IN LARGE DOSES.

BY LEWIS SHAPTER, M.D. CANTAB.,

PHYSICIAN TO THE DEVON AND EXETER HOSPITAL, CONSULTING PHYSICIAN TO THE WONFORD HOUSE HOSPITAL FOR THE INSANE.

CASE 1.—Clara B——, aged sixteen, had been the subject of "general" psoriasis for six months, and, notwithstanding treatment, the disease remained unchecked. On her admission into the Devon and Exeter Hospital the whole of the body, including the head, was covered with the disease, and in some places, such as about the ears, the derma had become infiltrated and thickened.

During the first two months, treatment consisted in the administration of Donovan's solution in fifteen-minim doses thrice daily, and the local application of a lotion containing carbolised glycerine. There was no decided or progressive improvement; and the same must be said of treatment by the external application of tar, by internal medication with carbolic acid in large doses, and with liq. arsenicalis in five-minim doses, combined with citrate of iron and ammonia. The case still remained obstinate, and could only be regarded as having been relieved and rendered more tolerable.

I then ordered one-twentieth of a grain of arsenious acid to be taken in pill thrice daily, and the surface to be kept as clean as possible with vaseline and the occasional use of warm baths. At the end of a week the dose of arsenious acid was increased to one-fifteenth, then to one-tenth, and after the lapse of a fortnight it was again increased to one-fifth, and subsequently to one-fourth of a grain. When the dose of one-tenth of a grain was reached improvement commenced, but the slow and limited progress warranted a further increase in quantity, and the results showed that even larger doses were needed. The disease was checked, and each increased dose of arsenious acid appeared to do its work in limiting its extent; but after a time each successive stage of progress was stayed, and more of the drug was demanded to complete the work that had been begun. Two months after this system of treatment had been commenced the dose of arsenious acid was increased to one-third of a grain thrice daily; this was continued for another month, when some few isolated patches upon the legs were the only remaining indication of the disease. The dose of arsenious acid was again increased to half a grain; and at the end of another month the patient was discharged recovered, the arsenious acid having been omitted for a week before her final discharge from the hospital.

CASE 2.—George H——, aged eighteen, the subject of "general" psoriasis of two months' duration. The disease

in some places took the form of lepra gyrata, but on the whole it was "diffuse" and "general," covering the body and the head, and showing no special characteristics. A previous history of sore-throat led to a preliminary course of treatment with iodide of potassium, and subsequently with the biniodide of mercury, but without any more decided result than would ordinarily follow the use of the external remedies that were at the same time ordered. He was then placed upon a course of Donovan's solution, but without result; and subsequently a pill, containing three grains of carbolic acid, and one-fiftieth of a grain of arsenious acid, with sufficient quantity of bread-crumb, was ordered to be taken thrice daily after meals. Progress under this treatment was gradual and satisfactory; so much so that after three months he was discharged recovered.

Fortunately the man, on his discharge, was retained in the service of the hospital as a porter, and we had therefore the disappointment of seeing the disease gradually return in all its pristine vigour. The pills seemed no longer to have any effect, and he was at last made again an in-patient, with the view of submitting him to a course of tar. This also proved successful for a time, but again the disease made its appearance, and it threatened to be as bad as ever. Phosphorus, in doses of one thirty-second of a grain, was then resorted to for a time, with the hope of at least keeping it in check, but the drug soon had to be stopped on account of the physiological effects produced. The man then told me that he was getting quite "out of heart," and thought he should be troubled with his disease all his life: nothing seemed to do him good except for a time. Reading this case in the light of Case 1, I then commenced the treatment by arsenious acid. From doses of one-twentieth of a grain, I gradually pressed onwards to a quarter of a grain, and this latter dose was continued for three months or more. The disease was cured, and for the remaining twelve months that he was in the service of the hospital there was no return of the psoriasis. The man appeared to thrive and feed upon the increasing doses of arsenious acid; he became stout and well-nourished, and more capable of bearing fatigue; and although slight physiological effects were produced in his case for a time from the dose given, I saw no sufficient reason for stopping the treatment, and he continued the drug for the time allotted without intermission.

CASE 3.—John P——, aged twenty-nine, the subject of "lepra guttata," chiefly affecting the arms, breast, back, and forehead. He had been a sufferer from this disease for seven years, during which time he had been through various courses of treatment, with the result of only affording some temporary relief. After a preliminary course of iodide of potassium, which produced no results whatever, he was ordered a bread pill containing one-twentieth of a grain of arsenious acid thrice daily. The dose of arsenious acid was gradually increased to one-tenth of a grain, when he complained of gastric pain. The pill was in consequence neither omitted nor the dose diminished, but having persevered in its use for two months, he continued free from his complaint.

CASE 4.—Rose M——, aged eighteen. Thick patches of lepra alphoides on the knees and elbows, and small isolated patches on other parts of the body. For three years she had submitted to various courses of treatment without any very striking results, and when the treatment with arsenious acid was commenced, the eruption was as marked as when I first saw her a year previously. The ordinary dose of one-twentieth of a grain of arsenious acid in pill with bread-crumb was given in the first place, and this was after a time gradually increased to one-tenth of a grain, one-sixth of a grain, and finally to one-fourth of a grain, when improvement became manifest and permanent. Carbolic acid in three-grain doses had been previously tried in this case, but it was found necessary to suspend its use. The arsenious acid, on the other hand, was well borne.

CASE 5.—Henry B——, aged fifteen. Psoriasis capitis with diffused spots of lepra guttata about the arms and back. For two months one-fortieth of a grain of arsenious acid was ordered thrice daily, and the dose was gradually increased to one-tenth of a grain. At the end of three months the boy had recovered.

These cases are recorded as illustrative of a specific line of treatment in such cases of psoriasis as appear to be unconnected with any special cachexia or diathesis. Each case, except the concluding one, had resisted all the usually adopted specific lines of treatment, and as the external treatment during the administration of the arsenious acid only consisted in the preservation of cleanliness by a method which I shall speak of hereafter, no stress can be laid on this point to detract from the value of the other.

The point I wish to urge is, that if arsenic is taken up as a remedy in psoriasis, before it is recorded as having failed, much larger doses ought to be given than have hitherto been customary. The only excuse for abandoning the remedy is the production of persistent and aggravated physiological effects; otherwise, within a range of dose of from one-twentieth to half a grain, the required curative dose is only reached when some marked effect is produced on the disease. In many cases, as originally shown by Neligan, the first effects of arsenic are to make the cutaneous redness and scaliness more manifest, but this should only suggest the continuance of the drug. An apparent increase of the disease, and such trifling symptoms as slight irritation of the conjunctiva or gastric pain, should only prompt us to continue, and not discontinue, the use of arsenic.

In justification of the range of dose of arsenious acid recommended one word may be said. There is no remedy which we handle with so much fear, and of which the medicinal dose, as it is ordinarily stated, bears such a small relation to the poisonous dose, as is the case with arsenic. The late Dr. Warburton Begbie drew attention to this fact in the following words: "The medicinal dose of arsenic averages the twenty-fourth of a grain; and the smallest recorded fatal dose is two grains, or fifty times the amount generally required in medicine. There is no other remedy where the small proportion of medicinal dose is so marked. Imagine two hundred grains of calomel or one hundred grains of opium as a fatal dose."[1]

With regard to the form in which arsenic is usually given, my objection to the liq. arsenicalis or the liq. potassæ arsenitis, as it is still commonly called, is that a special period of the digestive process has to be chosen for its administration. There can be clearly no object in choosing the liq. arsenicalis as the arsenical remedy if it is given whilst the gastric juice is still operating on the food; the preferable form would, indeed, be the liq. arsenici hydrochlor., but seeing that we are practically dealing with arsenious acid, whether we use the liq. arsenicalis or the liq. arsenici hydrochlor., I prefer dealing with the drug directly, and accurately estimating its dosage by weight, instead of roughly estimating it in solution by minims.

Another more or less popular method of giving arsenic is by means of the Asiatic pill. It consists of the thirty-second of a grain of arsenious acid combined with a grain of black pepper, and made into a pill with gum acacia, and is supposed to owe its efficacy as much to the derivative or irritant action of the pepper as to the specific action of the arsenic. Without questioning the value of the several methods of giving arsenic, I give the preference to arsenious acid in solution or in pill with bread-crumb, because the dose can be easily regulated, and because the drug in this simple form can be pushed to the administration of large doses, while the combination with pepper, liq. potassæ, soda, or iron, only tends to its rejection by the system.

The other specifics in use in the internal treatment of psoriasis are phosphorus, carbolic acid, liq. potassæ, pix liquida, sulphur, and dulcamara. Phosphorus, introduced into notice in psoriasis by Hardy, of St. Louis, and subsequently by Dr. Broadbent, is undoubtedly a remedy of great value. It will cure cases that have resisted arsenic as it is ordinarily administered, but as a powerful nervine tonic it is less easily assimilated, less easily handled, and less easily taken than arsenic. The same must be said of carbolic acid. The Viennese plan of treatment, consisting of the administration of one-and-a-half-grain doses of the acid made into pills with liquorice, and gradually increasing the dose until fifteen grains daily is reached, has gained some favour; but it is needless to suggest that carbolic acid given in this way, and in such large doses, requires constant and careful observation. It is probably, however, most serviceable in recent cases, or where a congestive state is the prominent characteristic to be combated. My own observations on carbolic acid as a remedial agent in other diseases, such as ague, lead me to the opinion that it is, like phosphorus, a powerful nervine tonic, ranking in potency above arsenic in the doses in which this latter drug is usually administered. Like phosphorus also, the use of carbolic acid in psoriasis is open to the following objection: its physiological effects are so severe that they call for a cessation of the drug before the full power of the remedy as a nervine tonic can be obtained.

[1] Edinburgh Medical Journal, Nov. 1876.

Comparing, that is to say, one-thirtieth of a grain of phosphorus, or a grain and a half of carbolic acid, with one-thirtieth of a grain of arsenious acid, the one-thirtieth of a grain of phosphorus will rank first in potency, the grain and a half of carbolic acid second, and the arsenious acid third; but use arsenious acid in a larger and more reliable dose, and we have a remedy from which the full tonic power can be obtained without even, in many instances, the objection of causing any physiological effects at all. If, then, a drug will produce a certain amount of good, but we cannot press it beyond a certain dosage, its use is correspondingly limited, and practically we may often have to look to arsenic in large doses to continue the work begun by phosphorus or carbolic acid, if these drugs are chosen in preference to arsenic in the first instance.

Exeter.

MALARIA AND AGUE.

By HENRY FREDERICK NORBURY,
STAFF SURGEON, R.N.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

A CONSIDERABLE amount of scepticism seems to be rife at present as to the actual existence of malaria as a specific poison, and, in conversations I have had with medical men of experience in the tropics, I have been surprised to find how many adherents this heresy possesses; indeed, a work was published no long time since which claims to have proved the non-existence of malaria as a producer of intermittent fever, and attributing the phenomena to the effect of "chills" or the rapid abstraction of animal heat. A considerable experience in different parts of the world has served to strengthen my belief in the popular doctrine, and the following case which some time ago happened to myself is so very clear in its etiology, and the cause and effect are so palpably connected, that no evidence could in such an instance be stronger, and under these circumstances it is, perhaps, not undeserving of record.

The Cape Colony is somewhat celebrated for its freedom from agues, at least such is the case with its south-western portion; indeed, on the peninsula terminating in the Cape of Good Hope, and on which Simon's Town, the principal naval station, is situated, such diseases are absolutely unknown. This peninsula consists of a chain of rugged mountains acquiring a height of 2000 feet, gradually sloping on the east towards the sea, while on the west a small sandy plain intervenes. The geological formation comprises strata of non-fossiliferous red sandstone, several hundred feet in thickness, based on granite and gneiss, while mounds of gravel are occasionally met with; there is no collection of subsoil water, and the surface is covered with sandy humus thickly studded with bushes; the potable water, moreover, derived from the rain which has percolated the sandstone, is singularly free from organic matter, as I have ascertained by frequent testing.

The present season has been remarkable for its heavy rains, a few very bright hot days intervening. It was on one of these latter occasions, while taking a walk with a friend, that I stood on a heap of moist decaying vegetable matter by the roadside, principally composed of the thick succulent leaves of the Opuntia vulgaris, so as to get a better view of the scenery. The sun was shining brightly on it at the time, when suddenly I inhaled an odour so rank with the peculiar exhalation of decomposing vegetation that I felt nauseated, and was obliged to abandon my position. Exactly four days subsequently, towards noon, I began to feel languid and experienced severe aching pains in the back and limbs, and in the course of an hour I had a violent fit of shivering, with chattering of the teeth, cutis anserina, lividity of the toes and fingers—indeed, all the usual symptoms pertaining to the cold stage of ague. This lasted for an hour and a quarter, during which time I was given hot drinks. Hot-water tins were applied to the surface, &c.; and then the stage of pyrexia came on, the temperature soon rising to 101·4°, and eventually attaining that of 105·2°. This lasted for an hour and three-quarters, and then began to be succeeded by the sweating stage; the diaphoresis was profuse, completely saturating the mattress, bed-clothes, &c., and leaving me quite debilitated. Immediately that these symptoms had subsided I took a purgative, combined with a ten-grain dose of quinine, continuing five-grain doses at intervals until some amount of chinchonism was felt. Two days subsequently I underwent a very mild paroxysm, since which I have had no return. I should remark that I had not quitted the district for three months, nor had I been out of the colony for nearly a year, neither have I ever before experienced the slightest symptom of ague.

I afterwards examined the matters contained in the air about the heap by the process of condensing its moisture on a large test-tube filled with ice, and submitting the fluid to the microscope; but a power of 1300 diameters showed nothing unusual, although the same fluid caused speedy decolorisation in a solution of permanganate of potash, and gave a faint violet tint on ebullition with chloride of gold.

Simon's Town.

A SUCCESSFUL CASE OF OVARIOTOMY.

By JAMES BOURNE HARGREAVES, F.R.C.S.E.

THE subject of this case, Mrs. D——, a strong, healthy woman, aged twenty-four, came first under my observation as a patient on the 10th of August, 1873, when I attended her in her first confinement. She had a straightforward labour, the child presenting in the second natural position. She did well. On Sept. 9th, 1875, she aborted at the third month of utero-gestation, getting over the miscarriage without professional assistance.

She came under notice once more on the 8th of December, 1876, when I was summoned to attend her again in labour. Upon examination I found the head presenting; os uteri well open, but very high up above the brim; uterine action moderately strong. My finger also came in contact with a fluctuating tumour dipping down into the pelvis, on the right and towards the posterior of the pelvic cavity, obstructing the passage of the head into the vagina. It was movable, and in the intervals between the pains could be pushed up into the abdomen. Delivery was accomplished with considerable difficulty by version; the child was still-born. Upon questioning her she said that she had suffered from a fulness and dragging pain in the right hypochondriac region, which had continued to increase in severity, but thought that it was due to her pregnancy simply. She recovered from her accouchement without a bad symptom.

A few months afterwards I again examined her, and found a circumscribed tumour, about the size of a football, occupying the right hypochondrium, movable and fluctuating in character, which, after careful consideration, I diagnosed as ovarian. This continued to increase in size from that time to Jan. 22nd, 1878, on which day my friend, Mr. Whalley, of Bradford, and myself examined the tumour, and tapped it (with the aspirator) on the right side, middle line, and left side of the abdomen, drawing off about a pint of linseed-tea-looking fluid. The tumour at this period, filling the whole of the abdominal cavity, had begun to be very troublesome (from pressure), and the patient wished very much to have it removed.

Operation, January 31st, 1878, 2.30 P.M.—The temperature of the room having been raised to 65° F., and kindly assisted by my friends Messrs. Whalley and Roberts, the patient was placed under the influence of ether administered from Ormsby's inhaler, and the bladder having been emptied, an incision about four inches long was made, beginning about one inch below the umbilicus, and the abdominal cavity opened. The tumour was brought into view. It was multilocular in character. A large cyst was tapped with a middle-sized (Spencer Wells's) trocar, and about forty ounces of fluid drawn off. The other cysts were filled with semi-solid matter. The hand was then passed round it, when it was found to be adherent to the abdominal parietes on the sites of the tappings, and to the omentum; but these adhesions were easily broken down by the finger. The tumour was then removed from the abdominal cavity with some difficulty caused by the solid character of the contents of the cysts. The pedicle was about five inches long, two inches and a half wide, broad and flat, and was secured by a Spencer Wells's clamp, and the tumour cut off short. The hæmorrhage was very slight indeed, no vessel requiring to be ligatured. The pelvis was then carefully sponged out, and the

edges of the wound brought together by four (thick silk) sutures passed through the whole thickness of the abdominal walls, including peritoneum and two superficial (skin) sutures, and dressed with a pad of dry lint. Patient to be wrapped in hot blankets, hot bottle to feet, and put to bed. At 6.30 P.M., there was great abdominal pain; pulse 120; temperature 99·5°.

February 1st.—1. A.M.: Catheterism. Considerable nausea, but no vomiting. Pain in abdomen still severe. Two grains of opium to be taken in pill. Pulse 130; temperature 100·5°.—8.30 A.M.: Pulse 140; temperature 100·5°. Pain in abdomen much easier. Catheterism. Ordered morphia suppository. To have ice.—10 P.M.: Catheterism. No pain. No nausea. Pulse 128; temperature 101·5°. Suppository to be repeated.

2nd.—Pulse 120; temperature 100·5°. Takes milk freely. No vomiting. Repeat suppository.—Midnight: Pulse, 130; temperature 99·5°. Takes milk and ice very freely. No vomiting. Repeat morphia suppository.

3rd.—11.30 A.M.: Pulse 120; temperature 99·5°. Patient very comfortable. Passing flatus freely. No pain in abdomen.—4 P.M.: Wound dressed. No pus, and appeared to be uniting by the first intention in the greater part of its length. Repeat suppository; catheter to be used every six hours.

4th.—Noon: Patient suffering from violent colicky pain, and a burning sensation in the rectum, fancying she was about to have her bowels relieved. Suppository to be repeated. Pulse 140; temperature 101·5°. At 4 P.M. the wound was dressed with pad of lint wrung out of aqueous solution of carbolic acid, 1 part to 30. Pain in rectum still severe. Ordered injection of starch and opium (thirty drops of laudanum to four ounces of starch enema), which was followed by a comfortable sleep for an hour and a half. About 6.30 patient had a copious and very offensive motion.

5th.—8.30 A.M.: Pulse 120; temperature 100°. Much easier. About 2 this morning patient had a second motion of the same character as the one on the previous evening, preceded by severe pain in the bowels. Suppository to be repeated.—6 P.M.: Pulse 100; temperature 98°. Wound clean and healthy. No pain.

6th.—Pulse 86; temperature 98°; tongue clean. Passed a quiet night. Ordered a mixture of quinine (every four hours), to take brandy-egg-and-milk mixture and beef-tea, one pint of each every alternate four hours.

7th.—Pulse 84; temperature 98°. Slept almost all the night, no pain, and feels very comfortable. Takes her food freely, without any inconvenience. Wound dressed, two sutures removed. Patient comfortable. Wound healthy.

8th.—Pulse 80; temperature normal. Patient going on well. Ordered fish and mashed potatoes for dinner (at patient's own request), and to take a little champagne in addition to the other food. During this afternoon the bladder was relieved without the use of catheter. Wound quite healthy. Slight collection of (laudable) pus under clamp.

10th.—Slept well the last two nights. Pulse 82; temperature normal. To have mutton chops for dinner. The three remaining sutures removed. Upon examining the clamp carefully, I found it loose; stump looking very well; small collection of pus round its attachment to the abdominal walls. To have suppository to-night.

11th.—10 A.M.: Patient doing well. Pulse 84; temperature 98·5°.—9 P.M.: Dressed wound; has had free use of her bowels this afternoon; continuing to micturate without catheter. Takes milk diet freely without inconvenience.

The patient progressed very favourably until Feb. 15th, when, on visiting her, I found that she had passed a restless night, associated with considerable gastric irritability, and vomiting of bilious matter, which I attributed to some improper food (spice cake), which had been given the preceding day. I ordered the bowels to be relieved by enema. A mixture of bismuth and soda to be taken every four hours, and twenty grains of chloral hydrate at bedtime.

16th.—Patient had passed a good night; slept well; vomiting ceased; no pain; says she is perfectly easy. Dressed wound, which is doing well.

18th.—10 A.M.: Dressed wound; had a restless night.—11.30 P.M.: Menstruating pretty freely. Ordered chloral draught to be repeated.

From this date recovery was uninterrupted. She was dressed, and sat up on the 24th, and on March 4th was able, without the slightest difficulty, to go about her household duties.

Wellgarth House, Armley.

Reviews and Notices of Books.

St. Thomas's Hospital Reports. New Series. Edited by Dr. PAYNE and Mr. MACCORMAC. Vol. VIII. London: J. and A. Churchill.

THIS volume fully sustains the reputation of the series, for it contains several papers of considerable interest. It is only right that the profession should look for "much" where so "much has been given," and it should expect to find year by year in these Reports proof that the mass of material for observation is being well utilised by the staff of this hospital. But it is only right to point out that the results of much of the best work done at this hospital are not recorded in its Reports, but are to be found in those of the various London medical societies. The first paper is a report on Ninety-two Cases of Chorea, by Dr. Peacock. It is chiefly statistical, while at the end of it the notes of some of the more interesting cases are given at length. In a short paper on a Case of Intestinal Obstruction Mr. Wagstaffe advocates tapping the gut, when there is a rapid accumulation of gas, as a means of giving great temporary relief, and as possibly being curative in its action by removing pressure above a valvular closure of the gut. He states that the operation is a safe one, and that even when fæces flow through the trocar no extravasation into the peritoneal cavity will occur on its withdrawal. The evidence he gives to support this last statement is hardly conclusive. When the tapping relieves the distension of the gut no doubt the small opening of the trocar is efficiently closed by the loose mucous membrane and the contraction of the intestine; but, should the distension recur, as may sometimes be anticipated, is it not probable that the minute puncture may be reopened in the now paralysed gut? Dr. Stone follows with a paper on Pleural Tension, in which he shows that the diaphragm is in a state of upward tension owing to the atmospheric pressure on the inner surface of the lungs being partly overcome by the elasticity of those organs. Dr. Sharkey and Dr. Jacob have written two careful papers on the Treatment of Acute Rheumatism by Salicylate of Soda. The results they record fully maintain the reputation of this drug. There is also a paper on Salicylic Acid by Mr. Acland. Dr. Ord gives an elaborate analysis of Sixty Cases of Enteric Fever, with special reference to the treatment by the "graduated bath." He strongly urges that in every case where the temperature is rising, and has reached 105° F., the bath should be employed, if there are no abdominal symptoms to render its use dangerous.

One of the most important and useful papers is that on "Simple Meningitis," from the able pen of Dr. Greenfield. He endeavours to establish the following pathological propositions:—(1) Blood diseases tend to affect tissues which are structurally or functionally alike. (2) Morbid reactions of nearly all kinds tend to become infective, and when they are so, reproduce their like. (3) A morbid reaction starting in any particular kind of tissue or organ especially tends to inject tissues or organs of like structure. He gives the careful record of several cases, two or three of the primary form of the disease, and several in which it developed secondarily to fevers or inflammations. Dr. Greenfield also gives the record of a very good case of Croup in a child ten months old where tracheotomy was performed, and after the wound had healed it had to be opened up and the tube reinserted, the child ultimately recovering. The treatment of Hydatid Disease of the Liver is ably dealt with by Dr. Harley, and Dr. Payne has an interesting paper on the Classification of Remedies.

Messrs. Wagstaffe and Reid continue their valuable series of observations on the anatomical variations met with in the dissecting room. Mr. Wagstaffe has also a short paper in which he points out the extent to which tilting of the pelvis

alters the lengths of the lower limbs as measured from the crest of the ilium to the internal malleolus. Mr. Nettleship reports cases of Syphilitic Choroido-Retinitis, of Disease of the Vitreous and Detachment of the Retina, and of Abscess of the Detached Lobes of the Lachrymal Gland. There are other short papers by Mr. MacCormac on Dislocations of the Shoulder; Dr. Cory on the results of the examination of fifty children born dead or shortly dying; Mr. Clutton on the Vocal Method of Inflating the Tympanum, which he recommends; and by Mr. Anderson on Kakke. The volume closes with the careful and very elaborate Reports of the Surgical and Medical Registrars for the years '76 and '77, and Reports of the Eye and Obstetrical Departments. These greatly add to the value of the book. We regret to see so many cases of erysipelas and pyæmia among the surgical cases, but are glad that the registrar has given special tables with particulars of them. It is by careful work of this kind that we shall gain knowledge of the true means of prevention of these scourges.

Domestic Medicine and Hygiene. By W. J. RUSSELL, M.B. London: W. H. Everett. 1878.

WE are glad to oblige the publishers by complying with a desire very prominently expressed in an interleaf at the beginning of this little work, and give it a notice. The author, on the same interleaf, "begs to state (to the reviewer) that, the work being written for popular use, he has given most attention to the more common ailments, such as indigestion and hysteria." We very naturally turned to "Indigestion," which, with its subdivisions, headed respectively Gastric Juice, Insufficient Division, Faulty Innervation, and Chronic Inflammation, occupies from fifteen to sixteen pages of a small and very convenient book of 412 pages, including an index and a very copious table of contents. But Hysteria (which, by the way, is wrongly paged in the index) is only accorded six pages of matter, it being a subject on which a great deal might be said from a moral and mental as well as a physical point of view without doing harm. But Mr. Skey's well-known aphorisms on the subject are quoted, as well as Sir Benjamin Brodie, Dr. Hughes Bennett, and Sir Thomas Watson, so that quality here may make up for quantity. In glancing over the book we come upon several tables arranged something after the style of those in Reynolds' and Roberts' Medicine, and find, moreover, in them such words as "hyaline," "uræmic," "neuro-retinitis," &c. Is it fair to expect a layman to understand, or, if he or his friends are ill, very much care to understand, such terms? Can it, too, very much concern such persons to know that in the waxy variety of Bright's disease, "waxy liver and spleen are found in 80 per cent.; waxy degeneration of the bowels in 50 per cent.; and congestion of the lungs in 20 per cent."? This sort of sentence occurs over and over again, and in a book "written chiefly for popular use." We are, therefore, led to think what the term "popular use" may mean, and are unable to solve the question as applied to the book before us. For if it really aim to be simply and solely a guide to educate people as to the treatment of disease when no practitioner is at hand, it fails of its purpose in the sense of complexity and diffusiveness in a very conspicuous degree. And if for popular use among students, it must fail equally, for it assumes a groundwork of anatomy, physiology, and materia medica. In brief, the books attempts far too much. Brevity is one of the chief essentials of success in addressing those who, unfortunately, are compelled to doctor themselves, and we have here a glaring instance that not a little but a great deal of knowledge is a dangerous thing. And, too, when sudden seizures occur, what amateur can, or will, wade through pages of descriptions before any diagnosis or plan of treatment can be reached? The size and form of the book are so very convenient and enticing that it is disappointing to find so little of the domestic style in it; and the book is also gravely incomplete by the total omission of all surgery. Amateurs, even in the colonies or on the prairie, can hardly require two distinct professional books for their guidance in times of danger and difficulty. And, as regards indigestion, hysteria, and the like, inasmuch as the author, in speaking of the first, says "that it rarely causes direct danger to life," we counsel all so afflicted to get within range of a duly qualified practitioner, instead of spending many hours in trying painfully to find out the connexion of the malady with scanty gastric juice, insufficient division (? of what), or faulty innervation, whatever that may be.

Litholapaxy, or Rapid Lithotrity with Evacuation. By HENRY J. BIGELOW, M.D., Professor of Surgery in Harvard University. London: J. & A. Churchill.

TWO papers, which have already appeared in American journals, are now published in the form of a book. The author describes a modification in the operation of lithotrity, which he would designate by the new name of litholapaxy —stone evacuation. Lithotrity, as usually performed, has two great disadvantages—the repetition of the sittings, and the presence of sharp fragments of stone in the bladder, one of which may remain behind and form the nucleus of a second calculus. This is clearly recognised by all, and was prominently alluded to in the late discussion on Sir H. Thompson's paper at the Medical and Chirurgical Society. Instead of giving up the operation on these grounds, Dr. Bigelow would modify it, so as to overcome these difficulties, and would even extend its applicability. He, first of all, crushes the calculus completely at one sitting, not at all fearful of evil consequences following prolonged manipulation in the bladder. For this purpose he uses a very powerful non-fenestrated lithotrite, in which the female blade is a little longer and broader than usual, and the male blade has a series of "alternate triangular notches, by whose inclined planes the detritus escapes laterally." A ball is substituted for the wheel in common use, while the lock is closed and opened by a revolving cylindrical handle. After crushing the stone completely, the fragments are extracted from the bladder by means of a modification of Clover's well-known apparatus, the evacuating tube of which is made very large, with an oval aperture at the side of the extremity. The author spent one, two, three, and, in one case, nearly four hours over the operation, being careful to remove, if possible, every fragment (in the later operations a much shorter time was occupied). He has performed the operation sixteen or seventeen times, with one death; and once he has removed, without crushing, thirty-five small calculi from the bladder, weighing when dry 240 grains. Dr. Bigelow's experience, so far as it goes, establishes the tolerance of the bladder to prolonged careful manipulation; and this being so, litholapaxy appears to be a development of the principle of, and an improvement on, lithotrity. If this speedy and thorough mode of evacuation of the stone is also safe, the advantages of lithotrity and lithotomy are combined in the one operation, which will then supersede them more or less completely.

Art and Art Industries in Japan. By Sir RUTHERFORD ALCOCK, K.C.B., D.C.L., President of the Royal Geographical Society, Author of "The Capital of the Tycoon," &c. With numerous Illustrations. London: Virtue and Co.

IT is seldom that a book which contains the results of years of patient research is so attractive, so thoroughly readable, as this. Sir Rutherford Alcock, whose knowledge of Japan is probably greater than that of any other European, has for many years past found relief from his diplomatic

labours in the collection and critical study of the artistic works of the wonderful country in which he has lived. The torrent of Japanese art which has flooded Europe of late years followed the London Exhibition of 1862, in which for the first time its beauties were revealed to the western world. Almost unknown twenty years ago, the cabinets, fans, and trays, even the toys of Japan, can now be found in every house, her designs detected on every wall. The semi-barbarous country, as we once thought it, has taught us art-lessons that have already affected us profoundly, revealing to us at a flash the meretricious falseness of much on which we had prided ourselves, and sending our decorative artists once more back to nature for inspiration.

It would be out of our province to review such a book in detail. The unsymmetrical symmetry, the infinite variety, the humour, the grotesque superstition, and the constant truth and beauty of design and colour in the art of Japan meet with abundant commentary and apt illustration. Incidentally national traits are from time to time exhibited—as, for instance, in the amusing examples of domestic medicine on page 112, where the *moxa*, a small cone of cotton, is burnt down to the skin of the patient's *foot* to cure a pain in the *head;* and in the oft-repeated jokes on the mother-in-law, common apparently in the east as in the west. Altogether the book is pleasant as well as instructive, and the admirable woodcuts, which appear in almost every page, have been selected with so much judgment that few statements are left unillustrated. The work would, indeed, have been nearly useless without them.

REPORT OF THE COMMITTEE ON THE ARMY MEDICAL DEPARTMENT.

No. II.

IN our last we examined that portion of the Report which relates to the first class of causes noted by the Committee as tending to prevent eligible candidates coming forward in sufficient numbers—"the alleged grievances of officers who are now serving or have served in the Department." We now proceed to the consideration of the second class—"the direct discouragement afforded by the calculable prospects in the Department itself."

The first cause noticed under this head is *(o) the ten years' system of service.* The Committee state the intention of the War Office in adopting this system to have been "without adding to the public burden, to create an excellent career for a small number of officers, and, for the remainder, to bridge over, on fair remuneration, the period when civil practice would be unremunerative, giving them at the end of the time a solid advance towards the purchase of a practice." They think that the system may have been based on a misunderstanding of the wishes and feelings of the profession, but it was adopted by the War Office under the belief that it had the support of Sir James Paget and several other leading members of the profession. It does not seem to have occurred to the authorities that although the scheme had some good points in it, there was the serious drawback that the officers whose services would be dispensed with at the end of ten years must return to civil life with the imputation that they were not good enough to be retained in the Department—that they had been weighed in the balance and found wanting. The Committee propose to secure the advantages of the system without the drawback, by making the retirement after ten years optional instead of compulsory. They also recommend that medical officers should have an opportunity of leaving the service if they wish, after fifteen and eighteen years, with an increase of the amount of gratuity in each case. We consider this an excellent suggestion. It is proposed to extend this privilege, under certain conditions, to such of the officers now serving under the warrant of 1876 as may desire to remain in the Department, subject to their being recommended for it by the Director-General.

The second cause included in this class is *(p) admission by half-yearly competitive examination.* There can be no doubt this had a certain deterrent effect on the candidates. Men who had just gone through their examinations for diplomas and degrees did not care to work up for an additional one to enter the army, and this operated especially in the case of those who were placed on the Medical Register shortly after one of the army examinations, and consequently had to wait nearly six months before an opportunity of competing for an appointment occurred. When the Warrant of 1858 was framed, an examination was deemed indispensable, and justly so, for the qualifications of some of the candidates, though possessed of diplomas and duly entered on the Medical Register, were found to be much below par. Since then the examinations of the various licensing bodies have become much more uniform, and the necessity for a special pass for the Army Medical Department less imperative. Should a Medical Bill be passed by Parliament which would ensure a common standard of proficiency, this departmental examination might, without any disadvantage, be abolished, and with it would cease the necessity for candidates waiting, in many instances, six months or more, since vacancies might be filled up as they occurred. In the meantime the Committee recommend that one half of the appointments should be made on the recommendation of "the medical teaching bodies" (we presume this means the recognised medical schools) of the United Kingdom, Canada, and Australia, and the other half by public competitive examination, at least until a common standard of efficiency is secured. The first class could, of course, be appointed as vacancies occurred, the second would have to wait, as at present, for the half-yearly examination. The candidates thus obtained would be sent as "probationers," with the rank of lieutenant and the pay of 8*s.* a day, to one of the large military stations to learn some of the *special* duties, till the period at which the next course of instruction at Netley should begin. After that course, the duration of which is four months, and "a pass examination in such subjects only as are essentially peculiar to army work," the probationer would be gazetted, his commission, we presume, being antedated to the period of his joining, as is the rule at present. There is much to recommend in this scheme. It will establish a definite relation between the medical schools and the public service; it will afford a guarantee to the latter that the men thus entering without an examination are at least fairly qualified professionally, and it will prove a stimulus to those students who look forward to entering the army to do their work so well as to merit the recommendation of their school, and avoid the unpleasantness of an additional examination and the delay connected with admission by open competition. But to secure this advantage the War Office must place the department on such a footing as will justify the staff of the schools in pointing out to their pupils the Army Medical Department as offering a desirable professional career, an eligible social position, an adequate retirement for all who complete a certain period of service, with a fair proportion of prizes in the shape of honours, rewards, and good administrative appointments. And from this point of view we would again caution the Secretary of State against adopting the recommendation of the Committee on the forage question. We greatly mistake the feeling of the profession if they will not resent a regulation which establishes an invidious distinction between the field officers of the Medical Department and of the Military Staff, which makes them mounted officers, dresses them accordingly, and then refuses them forage for the number of horses which, in accordance with their rank, they are entitled to keep. Surely the remarks of the Committee in reference to the classification of medical with combatant officers are as applicable to the question of allowances, including forage, as they are to honorary distinctions. "It is eminently to be desired," the Committee observe, "that the existing medical officers should present to the profession the aspect of a contented department," and this we feel satisfied will not be the case

unless they are put on the same footing with regard to the right to draw forage as the general staff.

The Committee judiciously recommend that with the abolition of the ten years' system, the rule by which the maximum age for admission was advanced to thirty-two should be altered, and the former limit of twenty-eight be again adopted.

We now come to the last of the causes enumerated—(*q*) *the low rates of pay and pension as compared with civil medical life and with other professions.* The Committee endeavoured to obtain correct estimates of the professional income of civil practitioners at different periods of their career, but failed to do so. They state, however, that from the answers received to their questions on this point, they think they are justified in coming to the following conclusion: "Taken one with another, a young medical man obtains in civil life a net income of £300 a year within five years of commencing practice. After ten years he is unlucky if he does not net £500 a year, and thence his income gradually rises to an average of £800 or £1000." With such prospects in civil life they consider that eligible candidates are not likely to be attracted by the pay now offered to army medical officers. With a view to place them more on a footing with their brethren in civil life, to bring the remuneration for their services more up to the market value, the Committee recommend an increase to the pay and pension of all existing grades, and the creation of a new rank between that of Surgeon-Major and Deputy Surgeon-General, so as to increase the chance of an executive officer obtaining a good pension. We have already published the proposed scale of pay and half-pay; but, in comparing them with the emoluments of civil practice, it is necessary to add certain allowances for quarters, fuel and light, and a servant. The following shows the proposed and existing scales of pay and allowances, and of retired pay:—

	Estimated pay & allowances, excl. of forage.	Pres. scale, Warrant of 1873, exclus. of forage.	Retired pay.	
			Proposed scale.	Pres. scale, War. of 1873.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Surg. on appointment..	291 5 0	260 11 3	—	—
,, after 5 years ..	341 5 0	306 3 9	—	—
,, after 10 years ..	365 0 0	365 0 0	—	—
Surgeon-Major on appointmt., at 12 yrs.	433 12 6	365 0 0	—	—
,, after 15 years ...	529 5 0	433 12 6	—	—
,, after 20 years ...	584 0 0	465 15 0	365 0 0	301 2 6
,, after 25 years ...	629 12 6	630 10 0	410 12 0	365 0 0
Brig. Surg. on apptmt..	675 5 0	No such rank	456 5 0	No such rank
,, aft. 5 yrs. in rank..	730 0 0		501 17 6	
		Maximum:		Maximum:
Deputy Surg.-Gen. ..	876 0 0	803 0 0	638 15 0	465 7 6
Surgeon-General	1368 15 0	1186 5 0	730 0 0	684 7 6

The Committee state that the retired pay with "contingent pension for widow, and compassionate allowances for children, should perhaps be estimated as on the average worth not less than £100 a year, in addition to the actual pay."

The proposed scales of pay and half-pay appear to be liberal, and, coupled with other improvements, ought to attract a sufficient number of candidates. There is one thing, however, in the scale of pay which we are at a loss to understand. In the preceding page of their report the Committee remark, with reference to existing rates, "It is true that good pay, and perhaps fair pension, are offered to surgeons-general," and yet they recommend an increase of £182 10*s.* to the maximum pay of that rank, being twice and a half as much as the proposed addition to the maximum pay of the deputy surgeon-general. Although it is not so stated, it appears by the proposed scale that it is intended to abolish, in the case of surgeons-general and deputy surgeons-general, the progressive increase of pay with length of service, which has hitherto been the rule, and is still to be applied to the other grades. If this be so, the disproportion in the increase to the administrative compared with the executive ranks will be still more marked, as a surgeon-general promoted under twenty-five years' service will receive at once an addition of £365 a year to his pay, and a deputy surgeon-general one of £182 10*s.* It is true these cases of early promotion may probably not occur often, but we have no doubt they have been taken into account in the actuarial calculations of the expense of the proposed changes. We cannot but think that the Committee have been tempted by the comparatively small number of administrative officers to make a show of great prizes in the Department at the expense of the executive officers. A modification of the scale for surgeons-general would enable the authorities to deal more liberally with the surgeons of ten years' service, who receive a comparatively small addition, or it might be utilised in dealing with the forage question, which, sooner or later, must be conceded. The addition to the scale of retired pay is liberal in the case of the executive officers, including the new grade of brigade surgeons, and in that of the administrative officers, especially to those under thirty years' service, the only exception being the surgeons-general above thirty years' service, whose retired pay is only now to be made equal to that of inspectors-general in the navy, an act of justice which ought to have been done years ago.

The Committee have gone at some length into the financial bearings of their recommendations, but upon these we do not think it necessary to enter. They point out that they have made no provision for a war or for any unusual demand upon the Department, because, "however necessary it may be in the combatant ranks and in the administrative departments to maintain the officers at war strength, it is not requisite to do so in the Medical Department. In times of warlike excitement, medical men can always be procured on a short engagement by the offer of high pay, which is cheaper than maintaining them, when not required, on lower pay with prospective pensions." They might have added that nothing can be more prejudicial to the Department or deteriorating to the individuals composing it, than to have a large number of officers with very little to do. We can recollect when that was the case in our army, when assistant-surgeons were greatly in excess of the needs for professional work, and as a natural consequence ceased to take any interest in it, and instead of adding to their knowledge, soon lost what they had acquired before joining. The Committee think that any great reduction of the number of medical officers serving at home, by the employment of civil practitioners, would be objectionable, from the danger "that there would not be enough medical officers at home to afford adequate reliefs to those abroad." But they also point out the uselessness of requiring a medical officer to accompany every small detachment travelling by rail or transport. On such occasions, should any unforeseen accident or illness occur, the services of the nearest medical practitioner might be obtained. By this course medical officers would be saved much useless annoyance and unnecessary expense.

We have thus gone over in detail the recommendations of the Committee. They appear to us to have been well considered, and, with the solitary blot of the forage question, to be such as are calculated to raise the Department in popular and professional estimation, and to induce candidates to come forward in sufficient numbers to keep it efficient. It now remains to be seen whether the Secretary of State is prepared to adopt them, and with what modifications. For the sake of the permanence of the reorganisation, we sincerely hope he will see fit to consider the right of the medical officers of the rank of surgeon-major to forage. But, whatever he intends to do, we counsel him to lose no time in bringing the measure into operation. The Department is suffering at present from the evils of an establishment inadequate to the requirements of the service; discontent has the natural tendency to spread; young medical men, who may feel disposed to enter the service will get weary of waiting and take up other professional employments; and the medical schools are already infected with the dissatisfaction which continues to be manifested by the officers now serving, which, as the Committee truly observe, militates against the army when the students have to choose a career. We trust that he will see the necessity of immediate action, and will without delay introduce such a measure as will remove existing discontent and hold out sufficient inducements to a good class of candidates to come forward. We should do an act of injustice if we concluded without giving the Committee credit for the pains they have evidently taken to arrive at correct conclusions, and for the kindly feeling they have shown towards the Department and the liberal spirit in which they propose to remedy its grievances. We regret that we have found it necessary to differ from them on one or two important points; but while we do so, we fully appreciate the manner in which they have discharged their very difficult duty.

THE LANCET.

LONDON: SATURDAY, OCTOBER 5, 1878.

EARLY in May last the Managers of the Metropolitan Asylum District addressed a letter to the Local Government Board, in which they called attention to certain facts connected with the two severe epidemics of small-pox from which the inhabitants of London have suffered during the past seven years, and asked for an inquiry into the causes and conditions which conduce to the frequent epidemic prevalence of this disease in the metropolis. The Managers pointed out that "the certainty of the recurrence of small-pox epidemics, unless steps are taken for improving the measures now adopted for preventing small-pox and for dealing with it when it breaks out in a severe form, demands early and earnest consideration by the Legislature and by public health authorities." The Managers expressed their opinion that revaccination, at or just before puberty, of those who have been vaccinated in infancy, especially of those who bear no evidence that the operation was efficiently and successfully performed, should be made compulsory; they further suggested the importance of the provision of hospital accommodation for non-pauper cases of infectious diseases, and the necessity for the prompt registration of all cases of infectious disease. The Managers of the Metropolitan Asylum District, upon whom has mainly fallen the onerous and responsible duty of dealing with these last two fatal small-pox epidemics, convinced that "no measures of a comprehensive character, suited to the wants of this vast metropolis," have been adopted either for preventing or arresting these small-pox epidemics, appealed to the Local Government Board, as the Central Health and Vaccination Authority, for inquiry, with a view to the adoption of more successful preventive measures in future.

Under date of August 23rd, the Local Government Board replied to the Managers' letter of May 6th, and it will not be unprofitable to analyse the Board's reply, even if the result only be to show how little can be expected from a Central Health Authority that sees no cause even for inquiry in the remarkable epidemic prevalence of small-pox in London during the past seven years, which undoubtedly implies comparative failure in the working of the Vaccination Act of 1871 in the metropolis.

The Local Government Board appears to infer that the Managers only asked for an inquiry "into the causes and conditions which protract the present epidemic of small-pox," and having waited nearly four months to consider its reply, it is able to assume that the present epidemic has come to an end; and that on this ground no inquiry is now necessary. It is needless to stop to consider the value of the assertion, that because the weekly deaths from small-pox in London are now below the average numbers in recent years, including more than one epidemic period, therefore the epidemic is at an end; or whether the recent epidemic was rather longer or shorter than previous epidemics. Neither is it very important to know that the Board has arrived at the safe conclusion that the epidemic of 1876–78, like that of 1870–72, was mainly due to "deficient amount of primary vaccination, inefficient vaccination of past times, and absence of revaccination."

With regard to the deficient amount of primary vaccination in the metropolis, the Board is undoubtedly justified in asserting that "since the Vaccination Act of 1871 came into operation the protection by vaccination of the juvenile population of the metropolis is much more general than it ever was before." The fact, however, that during the recent epidemic no less than 1283 children under five years of age, of whom only 502 were aged less than one year, died from small-pox in London (between January, 1876, and the present time) proves incontestably that the amount of primary vaccination since 1871 has been very deficient; for, as the mortality of small-pox cases averages about 17 per cent., it may be presumed that little short of 8000 children of those ages were attacked with small-pox during the year and three-quarters. We are told that in the metropolis until 1876 (the last year for which complete vaccination returns are available) fully 9 per cent. of each year's births were unaccounted for in the vaccination register; the proportion thus unaccounted for in respect of vaccination being more than double the proportion in the rest of England and Wales. This comparative failure of the Act of 1871 in London alone appears to be a fitting subject for inquiry. The Board admits that much remains to be done "to put the (vaccination) arrangements of the metropolis on a satisfactory footing," and promises not to relax its efforts to complete this reform. Some systematic inquiry, however, appears to us to be essentially necessary in order to ascertain what is the exact cause of the failure of the Act in London. Moreover, although logically convinced that children dying of small-pox under five years of age cannot have been successfully vaccinated, it is impossible, without careful inquiry, to ascertain what proportion of these deaths is due to the neglect of vaccination, and what proportion to the inefficiency of its performance.

We did not need the Board to inform us, "that when large numbers of unvaccinated and imperfectly vaccinated persons have been suffered to accumulate," the difficulty of dealing with small-pox epidemics is greatly augmented. It is, however, only fair to expect the Board, as the central health and vaccination authority, to take specific measures to ascertain, especially with reference to the deaths from small-pox of children born since the Act of 1871 came into operation, the precise causes of the failure of the provisions of that Act. Until it is known how much of this failure is due to the children having escaped infant vaccination, and how much to their having been inefficiently vaccinated, it does not seem possible to provide against a continuance of this failure. There are well-authenticated cases of children certified as successfully vaccinated in infancy, and yet dying of small-pox in early childhood, without any marks of successful vaccination. It would be well to know (and this could be ascertained) whether many of such cases have occurred in London during the recent epidemic.

The Board considers "inefficient vaccination of past times" as one of the three main causes of small-pox epidemics in London, and this may account for much of the adult mortality from small-pox, but the independent ex-

amination of the vaccination-marks of children in almost any elementary school in London would afford conclusive evidence of recent inefficient vaccination. Has the Board forgotten that soon after the outbreak of the recent epidemic Dr. TRIPE, the medical officer of health for Hackney, began a systematic examination of the vaccination-marks of the children in the schools of that sanitary district, and finding that about 25 per cent. of the children appeared to him to be insufficiently protected from small-pox, he suggested to the Local Government Board the desirability of making special provision for their revaccination? The Board, however, did not care to interfere, and Dr. TRIPE was obliged to let the matter drop. Is it not worth while to ascertain, by school inspection or otherwise, what is the actual proportion of inefficiency of vaccination among children vaccinated in recent years? The same inspection would doubtless also answer the purpose of discovering many unvaccinated cases. Such inquiry should not stop short at ascertaining the proportion of inefficient vaccination, but should trace it to its source. Boards of guardians are locally responsible for vaccination; but in a shifting population like that of London it is only the Central Authority that can carry out such an investigation as the circumstances of the case require, and as we understand the Managers of the Metropolitan Asylum District to have suggested. The Board, however, in its letter, chooses to ignore these grounds for an inquiry, and appears to consider non-vaccination, inefficient vaccination, and absence of revaccination more or less unavoidable, however much to be regretted.

Questions affecting the law of vaccination, such as the advisability of compulsory vaccination, can only be satisfactorily dealt with by a Royal Commission; but as regards defects in the administration of the present law, to which may be mainly attributed the conditions which produce the materials for small-pox epidemics in London, they are clearly within the province of the Local Government Board, and we cannot think the Board is well advised in evading the demand for an inquiry into the precise nature of these defects.

THE opportunity afforded by the reopening of the medical schools for this winter session—which stands first in the curriculum—is still extensively utilised for the delivery of addresses designed to convey advice to students or counsel to those upon whom the general ordering of the profession devolves, while the collateral purpose of admonishing and correcting "public opinion" and the powers that be, is not neglected. Some of the older schools have abandoned the custom of preaching an annual sermon *ad hominem*, and, instead, entertain their new pupils as guests at a *conversazione*. We are not prepared to pronounce judgment as to the comparative advantages of the two methods. Doubtless both have their "features of excellence," which will be most readily appreciated by congenial temperaments. Some men like being lectured, others prefer being fed. The only weak point in the present arrangement is that the student must submit to the selection made for him by the authorities of the school to which he becomes attached, instead of following the bent of his personal inclination.

The addresses delivered on Tuesday last are fairly up to the average of similar performances, and, taking them as a whole, they cover the accustomed range of topics. At St. Thomas's, Mr. NETTLESHIP, the recently-appointed ophthalmic surgeon, discoursed in defence of specialism, and with considerable tact and pains laboured to show that the subdivision of practice, if not of knowledge, in the treatment of disease, was of the earliest origin. The reunion of branches he conceives to have taken place in later times, while the new tendency to divide, which forms the characteristic of recent years, he regards as an inevitable consequence of the discovery and development of more perfect methods, requiring closer application to particular subjects of inquiry and greater personal skill. Meanwhile Mr. NETTLESHIP cannot be accused of any failure to recognise the essential need of breadth of knowledge and view in the practice of every department of therapy. Dr. WHIPHAM, of St. George's, discussed the converse aspect of this important question, ably expounding the maxim of ARISTOTLE that the best-educated physicians were those who devoted attention principally to the acquisition of a thorough knowledge of the body as a whole. Dr. IRVINE, dealing with the educational phase of the same subject, at Charing-cross, gave just prominence to the need of caution on the part of students, lest, led away by a passion for any particular branch of science or work, they should commit the grievous error of becoming specialists in knowledge as well as practice. It cannot be doubted that this is one of the gravest perils of the system of specialism. There is an admitted need for some specialism in the treatment of disease, but there is neither excuse nor remedy for the evil of specialism in study, and it is against this danger the student requires to be warned. Dr. ARTHUR W. EDIS, at Middlesex Hospital, expounded the necessity for greater attention to the study of Midwifery, and of course glorified the specialty. There are so many overwhelming reasons why this branch of art cannot be made an exclusive specialty, but must always form part of general practice, and at the same time so many urgent grounds for concluding that obstetrics should be made the subject of special study, that the arguments employed by its professors in defence of their specialty cannot be legitimately applied to any other. Mr. MACNAMARA, at the Westminister Hospital, devoted his address to the instruction of students as to their work and career, pointing out some of the paths which lie before the young man when he emerges from the state of pupilage, and counselling him concerning them. We print this lecture *in extenso*, and believe it will be read with interest and profit, particularly by the class of men who have reached the close of their curriculum. Dr. FARQUHARSON'S remarks at St. Mary's had, also, especial reference to the student—his duties, obligations, and opportunities. Professor GARROD, at King's College, well and lucidly taught the lessons which the student requires most to learn—the indispensable need of ability, information, energy, tact, and, by no means of lesser moment, *manners*. We have in these columns insisted strongly on the essential importance of modesty and devotion on the part of the pupil, and it is with satisfaction we find the same lesson eloquently enforced by the lecturer at King's College, in the course of an address which was alike remarkable for its research and discretion. Professor RAY LANKESTER'S address at University College must be regarded as a polemic

review of the relation of the universities with science, and particularly the science of medicine. The vast scope of this topic precludes our discussing it; but the lecture, which will doubtless be published, can scarcely fail to attract the attention which the labour devoted to its production claims and deserves.

We cannot do more than thus briefly recapitulate the leading points of the several addresses delivered, and it would be barely respectful to leave this duty undischarged. In so far as the formal exposition of questions like those discussed is likely to be profitable, the authors of the Introductories delivered on the 1st of October, 1878, may be congratulated on having performed a task which is at once difficult and embarrassing, with credit to themselves and the schools they represent. We venture to hope the young men for whose enlightenment they were primarily intended will give good heed to the counsel bestowed, and that the hints and suggestions thrown out in passing for the benefit of more influential persons and dignitaries will not be neglected by those whom they concern.

PHARMACOLOGY is the handmaid alike of physiology and of therapeutics. The discovery of new physiological effects of drugs is of not less service in investigating the normal actions of the organs and tissues, than in controlling their abnormal action. It supplies the experimenter with a new test, enables him to bring new influences to bear upon the conditions of, it may be, an old problem, and so to verify an old conclusion, or attain a new result. An illustration of this, of much interest, is afforded by some experiments of M. VULPIAN, which he recently communicated to the Académie des Sciences. A new condition, the action of jaborandi, has been brought to bear upon the action of the salivary and sweat-glands respectively, with the view of determining how far the apparent similarity in their relation to nervous influence is real, and the conclusion which is suggested by these experiments is of interest from its evidence as to the function of the glands, and the action of jaborandi.

It was ascertained by M. LUCHSINGER that if the sciatic nerve of a cat is divided, the chlorhydrate of pilocarpine injected under the skin on the day of the section causes an abundant secretion of sweat on the digital pulps of that limb, as well as upon the other limb. But if the injection is made more than six days after the section of the nerve, the pilocarpine has no action upon the digital pulps of the leg operated upon. The subject investigated by M. VULPIAN is, whether the effect is the same for the submaxillary salivary gland, the nerves of which are well-known, and on which pilocarpine has the same influence as upon the sudiparous glands. His experiments were made upon dogs, and the investigations show that jaborandi injected into a vein still excites the secretion of the submaxillary gland immediately after the chorda tympani, in the cervical cord of the sympathetic, has been divided, or the superior cervical ganglion has been excised, even when, in addition to the excision of the ganglion, the lingual and chorda tympani nerves have been divided. Is the effect the same some days after the section of the nerves? In a dog in which the lingual and chorda tympani had been divided seven days before, curara and artificial respiration being employed, the intravenous injection of an infusion of jaborandi caused immediately an abundant flow of saliva on the side on which the lingual nerve was intact. On the side on which the nerve was divided there was also an increased flow of saliva, but somewhat less abundant than on the other side, and the first drops escaped some moments later, and the saliva was more viscid. When the effect of the jaborandi was exhausted, a new injection was made, and again the same difference between the secretion from the two glands was apparent. Thus, seven days after the section of the nerves, the action of jaborandi on the gland was the same as with the nerves intact, differing only in degree.

In order to compare with this result the effect of section of the sympathetic, it was necessary to excise the superior cervical ganglion. Ten days later the two lingual nerves were divided above the origin of the fibres for the salivary glands, and it was ascertained that, on faradising the peripheral extremities of the nerves, a more abundant secretion of saliva was produced on the side on which the ganglion had been excised. Infusion of jaborandi was then injected into the femoral vein; the saliva flowed freely from both ducts of Wharton, but was a little more abundant on the side in which the sympathetic ganglion had been excised. It is clear, therefore, that the withdrawal of all the influence exercised by the sympathetic on the gland does not materially influence the effect of jaborandi on the secretion of saliva. In order, however, to make the comparison between these experiments and those on the division of the sciatic in the cat complete, it was necessary that all the nerves supplying the salivary gland should have been divided several days before. This was done in three dogs, and in each it was found that the action of jaborandi was still the same, although a little slighter and slower than on the side on which the nerves were intact. To ensure that there was no overlooked supply of nerve-fibres to the gland, the central extremity of a divided sciatic was then strongly faradised. An abundant flow of saliva occurred through the duct on the side on which the nerves were intact, but not a drop from that of the side on which the nerves had been divided, thus proving that no channels for reflex influence had escaped section.

The conclusion drawn by VULPIAN from his experiments is that the stimulation of the nerves which excite the secretion of the salivary gland has not an influence on the functional activity of the gland, such as that which the sciatic nerve exercises over the sudiparous glands of the cushion of the cat's foot. Jaborandi acts on the submaxillary gland several days after the section of the excito-salivary nerves; while after the sixth day subsequent to the section of the sciatic, containing the excito-sudoral nerves of the hind foot, jaborandi has no power of increasing the secretion of sweat there. To what cause can this difference be assigned? Is it due to a difference in the constitution of the anatomical elements which compose the two sorts of glands? Or is it due to the different modifications of the circulation which are produced by the section of the nerves experimented on in the two cases? Or is it to be attributed to the enormous number of nerve-cells which exist in the salivary glands, and which may serve to maintain the functional activity of the extremities of the nerve-fibres? The

latter explanation seems to M. VULPIAN the more probable, but fresh experiments are necessary to determine its validity.

IT was for a long time the fashion with zealous workers in the field of science to protest that the cause of discovery would not be advantaged by State patronage or State aid. The more thoughtful inclined to the belief that the patronage would be more mischievous than the pecuniary assistance was helpful. For some years past this persuasion has been losing ground, and, whether scientists are becoming more worldly or less exclusive in their views, it is abundantly evident that the reverse of a feeling of unwillingness to accept aid from the State prevails. It will doubtless be contended that the way in which help has been placed at the disposal of explorers and investigators so completely removes all difficulties, that it would be not less ungracious than impolitic to refuse the proffered assistance. The labourer chooses his own form of enterprise, or applies for aid in the course of an inquiry instituted at his own wish, that he has simply to satisfy a committee of fellow-workers as to the object of his pursuit or the nature of his researches, and, upon their recommendation, the necessary funds are forthcoming, without the least semblance of dictation or interference. The explanation is obviously satisfactory, but the fact remains, the objections which many of the older and more successful discoverers urged against seeking or accepting the assistance of the State in their investigations have been discarded, and the only grievance felt by contemporary inquirers relates to what they conceive to be the paucity of the grant and its wrong distribution, for which last fault, if fault there be, the governing bodies of the principal scientific societies are mainly responsible. We offer no present opinion as to the comparative merits of the old and new view of the State aid question, and we do not propose to discuss the complaints arising out of the system of administration extant; it is for the more pressing issue, whether a permanent provision should not be made for the support of men who live by investigation rather than teaching, we now ask a few minutes' attention.

It must be conceded by all who have any acquaintance with the subject that not only the pioneers, but, in a very practical sense, the advanced workers, in science must necessarily be debarred from the ordinary rewards of their profession. If it be difficult to practise and preach, it is incomparably more embarrassing to study and teach. In short, the explorers and investigators in any department of work cannot live by communicating the knowledge they accumulate. The business of utilising the store of information amassed by the labourers in the advanced field must be performed by men who are not themselves engrossed with research. The enterprise of discovery cannot be delayed while the explorers strive to popularise their acquisitions, nor are the faculties which prove most useful in the field of inquiry especially well adapted for successfully imparting the knowledge obtained. The functions of the scholar and the schoolmaster, the collector and distributor, are essentially different; we might go further, and affirm that they are scarcely compatible. It follows, therefore, that the two classes of workers must always exist. Some must make knowledge, and live by that form of labour, while others distribute or apply it to general uses. It seems to follow, without the need of argument, that, by some expedient, the means of self-support must be placed within reach of those who are not in a position to render their produce marketable. This necessity has been long recognised, and, with a view to meet the case, College fellowships, and snug sinecures in the Church and at Law, have been preserved for the shelter and support of those who required scholarly leisure for the pursuit of inquiries. The spirit of the age is, however, eminently utilitarian and strongly opposed to sinecures; and, as a matter of fact, the system was manifestly open to abuses. The medical profession has never largely enjoyed these advantages, although the discoveries made by its members are equal, if they do not surpass, those of any other branch of labour in science. The time has come when the whole question needs to be discussed from a new standpoint, and in a more practical fashion than hitherto. We venture to suggest that it should not be left in the hands of interested persons, who cannot speak freely on the topic, but considered by the profession as a body. The points to be adjudicated are: first, has Medicine its full and fair share of State aid? and, secondly, has not the time arrived when some formal provision should be made for the support of men who devote their lives to inquiry, and cannot reasonably or expediently be expected to practise or teach. In the old days much of the hardest work in science was done by Churchmen of the various orders, who were supported by the ecclesiastical institutions of the country; now the labour of research is performed by laymen, and they must live.

Annotations.

"Ne quid nimis."

THE ETHICS OF MEDICAL PRACTICE.

IT is no slight credit to the medical profession that it should have a system of ethics by which the relations and duties of its members to each other, to their patients, and to the general public are somewhat rigidly defined. It is still more creditable that this system is, as a rule, strictly observed, and that medical men seldom lay themselves open to the charge of breaking through rules which represent the wisdom and the good feeling of anterior generations, from Hippocrates downwards. Dr. Percival has well said: "It is the characteristic of a wise man to act on determinate principles; and of a good man to be assured that they are conformable to rectitude and virtue. The relations in which a physician stands to his patients, to his brethren, and to the public, are complicated and multifarious, involving much knowledge of human nature, and extensive moral duties." Such were the words of the great medical moralist of recent days to his son, and such were the sentiments which underlay his medical ethics. We still need to reproduce them, and to think them out. The progress of our civilisation does not render them unnecessary. It may safely be said that medical relations were never more delicate or more complicated than they are now, and never needed more consideration at the hands of medical men with regard at once to their mutual and their public bearings. If any doubt existed on this point, it would be removed by the letters which we constantly receive. Most of these we do not publish, preferring to answer the writers in the quietest way, and to give as little publicity as possible to personal differences, which are always unseemly, and which mar the harmony and respect that should obtain between

men who have had the advantage of a liberal education, and are members of a liberal profession. We, however, print two letters in another column on points of medical etiquette, chiefly because they are the last which have come to hand, and will serve to show the faults into which medical men are apt to fall who forget what is due to the dignity of their profession, and of those who, while occupying a different grade from theirs in the profession, must not be regarded as occupying a lower one. There is nothing more obvious than that both the writers are correct in their inferences, if these facts be right, and that the practitioners of whom they write are guilty, the one of conduct more befitting a tradesman, the other of self-conceit and imperfect respect for his professional brethren.

In regard to the letter signed "M.R.C.S." we may remark that a generous incredulity towards any evil suggestion about a medical neighbour, who may possibly be a rival, being understood, a medical man who encourages his wife and family to call on new-comers, and who follows this up by calling himself, has, to say the least of it, been badly advised. The social attitude of medical men towards new-comers should be one of, not discourteous, but dignified independence. There are patients who will advise them differently, and think that they are to tout for patients as a tradesman does for customers. But a medical man should know better, and give such patients to understand that medicine is a service to be sought by those needing it, not volunteered.

The second case, stated in the letter signed "H," is equally clear. The assumption of an air of superiority by one medical man over another is intolerable, whether the offender be a consultant or a general practitioner. It was never countenanced, even when the profession was sharply divided into apothecaries and physicians; but now, when the education of medical men is so much alike, when the best work of the profession is distributed among its various members, such an assumption is an anachronism, showing more folly than wisdom. The letter of "M. R. C. S." shows how practitioners should not behave towards the public; the letter of "H." how they should not deport themselves towards their brethren. Good medical conduct needs a rare mixture of self-respect and humility, of unselfishness and reverence for others, of acuteness and simplicity, and of all the magnanimity that comes of the largest knowledge of human nature. This is a great demand. But there is something in the great school of medical education and medical practice which begets it alike in great physicians and in general practitioners.

ENTERIC FEVER AT CROYDON.

DURING the last few weeks there have been rumours that enteric fever was becoming epidemic at Croydon, and some have feared lest that usually healthy suburb was about to be visited with an outbreak similar to that which caused so much alarm in 1875, and was so carefully investigated by Dr. Buchanan. It would appear, however, that in the present instance the outbreak has been limited, and entirely dependent upon milk-supply. It is due to the authorities of the town to say that in no suburb of London have sanitary precautions been more complete or more strictly enforced, and they have acted with due promptitude in tracing the outbreak to its source, and doing all in their power to limit it.

The facts are briefly these:—A number of cases occurred in the eastern district of Croydon, one of the most salubrious parts, about the middle of August, and several fell under the care of one medical man. Suspicious as to the source of dissemination of the fever were soon aroused by the fact that nearly all of the families in which cases occurred were supplied with milk from the same dairy. An inquiry was directed by the local board, and was ably carried out by Dr. Philpot, the medical officer of health. He found that of twenty-nine cases which he could ascertain to have occurred before the middle of September in twenty-seven families, twenty-four drew their milk-supply from one dairy.

Nothing could more clearly demonstrate the utter futility of our boasted sanitary legislation than the state of affairs with regard to such outbreaks. The sanitary authorities have no power either to prevent or check the conditions which give rise to them, nor can they punish those through whose negligence so much disease and death is inflicted. The Legislature has recently placed in the hands of the Privy Council a power to deal with the matter by making regulations for the inspection and control of dairies and dairy-farms, and the magistrates in session can, if they see fit, apply to the Privy Council for power to act. But the local sanitary authorities have nothing to do with this, as they are independent of the magistrates; and the power of the sanitary authorities themselves is limited to inspection and making recommendations—they are, in fact, powerless to act. Now that so much is known of the spread of typhoid fever by milk, it is surely time that the dairies and dairy-farms should be under strict supervision and control by a competent authority, and their owners be subjected to heavy penalties in cases of default.

THE MIDDLESEX HOSPITAL.

THIS hospital was reopened for the reception of patients on Sept. 15th, after having been, with the exception of the cancer wards, entirely closed for the space of eight weeks. The governors were anxious that the wards should not be shut up longer than was absolutely necessary, and, looking at the magnitude of the work undertaken, it is evident that great exertions must have been made to complete the alterations within the time. The following is a brief account of the improvements which have been made mainly with a view of enhancing the sanitary condition of the hospital. In the first place two new cisterns have been placed in each wing solely for the storage of drinking water; they are in direct connexion with the main, and are wholly apart from the cisterns supplying water for other purposes. The water from these cisterns is laid on to each floor of the building. It may be added that each cistern is fitted with a filter presented by Messrs. Atkins and Co., who have also given several smaller filters of the Admiralty pattern for the use of patients. The most extensive work, however, has been the thorough painting of the building, and the performance of many necessary repairs. Besides the repainting of the woodwork, the walls of the corridors, staircases, and the wards have been all distempered and painted in place of the Parian cement with which they have hitherto been covered. The painting of the walls is confined to a dado about five feet high around the lower part, and this is thoroughly varnished, the rest of the wall being distempered. Although at first sight it must be admitted that Parian cement would appear to be a good covering for walls, it has been found by experience at this hospital that, after a time, the surface becomes greasy and stained from exposure to the deleterious products of "London smoke," and the chemical changes resulting therefrom have rendered the surface rough, and therefore more liable to absorb moisture and to harbour dust. By not removing the cement, and by distempering the walls, these can be thoroughly cleansed every year at a comparatively small cost; whilst by varnishing the paint a durable smooth surface, which can be readily cleaned as often as desired, is obtained. The adoption of this plan is not only an improvement from a sanitary point of view, but has added greatly to the ornamentation of a remarkably plain interior. The suggestions of Mr. Clayton (of the well-known firm of Bell and Clayton), a prominent member of the Weekly Board, have aided much in enabling the governors

to carry out designs which, we think will be admitted, have vastly improved the appearance of the wards and of the hospital generally. It may be mentioned also that a further improvement in this direction has been effected by having the entrance hall and adjoining corridor, which were originally paved with large flagstones, tastefully laid down with encaustic tiles—a work which is due chiefly to the liberality and exertions of Mr. Nunn, senior surgeon to the hospital.

The laundry, which is contained in the basement of the east wing of the building, has been considerably enlarged, it having been found insufficient to meet the increased demand made upon it. The extension of the hospital buildings in Cleveland-street, which was commenced about a year ago, has been completed, and sleeping accommodation provided for twenty additional nurses, whilst a recreation-room has been added for the nursing staff. At the same time, four new wards, intended for the reception of special cases, have been opened. An hydraulic lift for the conveyance of patients to the wards is in course of construction, the expense of this having been entirely defrayed by the liberality of Lady Louisa Percy. Another useful gift is that of an ambulance upon wheels, intended for the conveyance of patients from the lift along the corridors to the wards, so that they can be taken to their beds from the reception-room with as little disturbance as possible. This has been presented by Sir Lionel Pilkington, Bart., who has on several occasions evinced in a like practical manner the warm interest he takes in the working of the hospital.

Although private liberality has to some extent assisted in defraying the necessarily large outlay incurred by these improvements, still a considerable expenditure has to be borne by the funds of the charity; and we think the governors have acted wisely in sparing no pains to place their institution in as favourable a sanitary condition as possible. It will be observed, however, that the improvements so far have concerned the in-patient department almost entirely, and that, of course, should have the first consideration. But the growth of the out-patient system has far exceeded the limited accommodation provided for out-patients at this hospital, and it is certainly inadequate for the requirements of the service. This is owing in great part to the limited ground area upon which the out-patient rooms are built; but we have good reason to believe that in a short time the governing body will be enabled, mainly through private generosity, to extend these buildings, and thoroughly reconstruct the department.

THE DEATH OF MRS. BRAVO.

A GOOD deal of unmerited censure has of late been passed by the lay press on the alleged insufficiency of the post-mortem examinations and analyses performed by general practitioners. We are not prepared to contend that these investigations are commonly carried out in a manner which can be deemed satisfactory from a medico-legal standpoint; but that is not the fault of the men who make them so much as of the legal authorities who are so ill-informed on medical subjects as to imagine that acquaintance with the subtle mysteries of pathology and pathological chemistry forms a necessary part of the ordinary practitioner's qualifications. It would scarcely be expected that a busy attorney in general practice should have time or energy to devote to the study of international law or any other specialty of the legal profession not in his daily routine. No conceivable blame could be supposed to attach to the man who did not pretend to a particular knowledge of these specialties. Nevertheless, although public opinion, as occasionally expressed by certain of our lay contemporaries, is fully prepared to admit that general practitioners of medicine cannot reasonably be expected to show an intimate acquaintance with the special diseases of the eye, the ear, or the skin, they are to be condemned if not experts in pathology and analysis. This is a singularly irrational mode of reasoning, and we must appeal for a revision of the judgment pronounced.

Apart, however, from any censure which has been passed on the method of making post-mortem examinations generally there has been a strong allegation of blame in the recent case of Mrs. Bravo. The complaint in this instance is that the contents of the stomach were not analysed, and in the absence of an analysis the medical men, very properly, declined to say of what they consisted. Now, whose fault was it that the required analysis was not made? No one who knows anything about the matter can be in doubt as to the answer this question must receive. "The contents of the stomach were placed in a wide-mouthed stoppered bottle, and were carefully secured in case an analysis should be desired. Portions of the kidneys, the liver, and the heart were also preserved"; but the law makes no provision for the payment of analysts' fees, and as these gentlemen will not work for nothing, it is the practice of coroners to waive the most important piece of evidence in many an inquiry as to the "cause of death." We have been favoured with the notes of the post-mortem examination in the case of Mrs. Bravo, and find that they duly record all the salient particulars, together with details too frequently left unnoticed. The important point, however, is the fact that there was no omission as to the contents of the stomach, and that the only defect in the case was that which arose from the want of an analysis, which it was no part of the duty of Mr. Turner and Dr. Henry R. Smith to make, but with a view to the future performance of which they did take due preparations.

THE GRAVESEND GUARDIANS AND THEIR MEDICAL OFFICERS.

GRAVESEND has been passing through an epidemic of small-pox, and forty-eight of the cases which occurred during its progress came under the care of the two Poor-law medical officers. One of these gentlemen attended twenty-seven cases, the average duration of attendance on each case being twenty-six days. The other gentleman attended twenty cases, the average attendance on each case being sixteen days. All the cases were attended in the patients' own homes, and in consequence of the exceptional call upon the time of the two gentlemen in caring for them, both made application, at the close of the epidemic, to the board of guardians for extra remuneration. This the guardians refused, on the grounds, first, that the work fell within the contracts of the medical officers, and, secondly, that their stipends had lately been increased.

At the first blush these grounds seem just and reasonable, and we can conceive innocent readers and virtuous ratepayers to be shocked at the illustration here afforded of the grasping nature of the medical profession. But there is another aspect of the question, which will, perhaps, provoke another judgment. Gravesend has no public means of isolating the sick from infectious disease, and such Poor-law provision as existed for this purpose was *closed to paupers in receipt of out-door relief just about the time that the small-pox epidemic began*. In other words, the means which to that time the medical officers had possessed of treating the pauper sick from infectious diseases, under circumstances most conducive to the welfare of the patient, to the economy of their own time, and to limiting the amount of pauper infectious sickness, was taken from them; no alternative provision had been made by the sanitary authority which would have helped to the same ends; and they were called upon to deal with epidemic small-pox under circumstances which heightened to the utmost the responsibilities, difficulties,

and amount of time required in dealing with this loathsome affection. Now the contracts of the medical officers with the guardians were made at a time when the Poor-law hospital accommodation for infectious sickness was available for such purpose, and in closing this accommodation in face of a commencing epidemic of small-pox the guardians have cast upon their medical officers an exceptional amount of labour and care in dealing with an epidemic not contemplated when the contracts with those officers were prepared and signed. It is for this exceptional labour that extra remuneration was rightly asked for by the medical officers; and the guardians, by refusing it, have done a gross injustice to them, and, in so doing, have furnished another illustration of that disposition to make the medical man the scape-goat of public necessity which has so largely characterised Poor-law administration.

DISTRIBUTION OF PAUPER LUNACY.

WE recently called attention to the fact that on January 1st last the number of pauper lunatics in England and Wales (in asylums, in workhouses, and with relatives and others) averaged 2·5 per 1000 of the estimated population, and, further, that whereas in the metropolis this proportion of pauper lunacy was equal to 3·5 per 1000, it did not exceed 2·3 in the rest of England and Wales. A brief consideration of the varying proportions of lunacy in the several English counties may assist the formation of an opinion as to the value of those figures as a test of the geographical distribution of real lunacy. In the eleven registration divisions the proportion did not exceed 1·6 in the northern counties and 1·7 in Yorkshire; whereas it was equal to 2·6 both in the eastern and south-western divisions. Thus the lowest proportions of lunacy appear among the mainly mining and manufacturing population of the northern counties, while the largest proportions prevail among the most essentially rural of the registration divisions. This fact is more conclusively proved if we notice the county rates of pauper lunacy. The lowest county rates were 1·3 in Durham, 1·6 in Staffordshire, 1·7 in Yorkshire, and 1·8 in Derbyshire, in each of which counties the proportion of urban population is large. The highest lunacy rates, indeed all the county rates exceeding 3·0 per 1000, were—Buckinghamshire 3·0, Berkshire 3·1, Worcestershire 3·4, Wiltshire 3·4, Oxfordshire 3·5, and Herefordshire 3·5; the population of these six counties is almost exclusively rural in character. It is probable that the proportion of pauper lunacy is to a considerable extent governed by that of total pauperism, and the proportion of pauperism is almost invariably higher in rural than in urban populations. At the beginning of this year only 2·2 and 2·3 per cent. of the population of Yorkshire and the northern counties were in receipt of Poor-law relief, whereas in the eastern and south-western registration divisions the proportion of pauperism was equal to 3·8 and 4·3 per cent. respectively. As might be expected, the proportion of lunatics to total paupers is larger where the percentage of pauperism is low; for instance, in Yorkshire and the northern counties 7·8 and 7·1 per cent. of the paupers were lunatics, while in the eastern and south-western counties the proportion did not exceed 6·8 and 6·2 per cent. respectively. Viewing insanity as a disease it is not a little remarkable that the proportion of lunacy in the different counties seems to bear no relation to the rate of mortality from all causes. The rate of mortality is considerably lower in those rural counties which show a high rate of pauperism, and especially of pauper lunacy, than it is in those counties containing a large proportion of population engaged in manufacturing and mining, where the ratio of pauperism and of pauper lunacy is considerably lower. While these figures appear to prove constant relation between pauperism and lunacy, and that the ratios both of pauperism and of lunacy are generally heavier in rural than in urban populations, the proportions of pauper lunacy in different rural counties vary widely enough to call for comment and investigation. In the counties of the south-western division, for instance, while the ratio of insane and imbecile paupers was rather less than 2 per 1000 of the population in Cornwall, it was equal to 2·8 in Somerset and Dorset, and to 3·4 in Wilts. So in the home counties of the south-midland divisions the rate ranged from 2·4 in Cambridge, to 3·0 and 3·5 in Buckingham and Oxford. Again, while in the metropolitan portion of Kent the rate of pauper lunatics did not exceed 2·4, it was equal to 3·1 in Berkshire. In the north-midland division the ratio of pauper lunacy ranged from 1·8 in Derbyshire to 2·8 in Leicestershire, a degree of variation which it is somewhat difficult to reconcile. If these figures may be to any considerable extent relied upon as indicating the prevalence of pauper lunacy, they prove not only that agricultural populations suffer more severely from insanity than do urban populations, but they also appear to show that what is generally understood as sanitary condition does not exercise much influence upon the causation of insanity.

MEDICAL ESSAYS FOR LAY READERS.

IT is with regret we observe that a paper recently published in these columns, and intended to give a scientific explanation of the cause of infantile summer diarrhœa, has been entirely transferred (with due acknowledgment) to the columns of a provincial journal—the *Midland Free Press*. It is obvious that matters so purely technical in character, apart from the tentative nature of the subject, were only intended for perusal by medical men, and were never meant to be paraded before the public at large. We do not blame the able writer himself, Dr. Johnston, for this, for he could not have given his sanction to such a proceeding, it being happily not the custom for medical men to contribute their professional writings and pathological speculations to lay journals, either directly or indirectly. We feel sure that he must deprecate as fully as we do this republication in full of his writings; and he must even more strongly regret that the public attention should have been drawn to his theories in an editorial paragraph in the journal in question. The columns of provincial newspapers are not the place for the free handling of purely medical topics; and even if they were, it would not be good taste to single out for especial comment and full publication the work of local practitioners. We are jealous of the freedom of the press, but we are also mindful of the privileges and the honour of the profession. Both are alike abused by such means as those to which we have reluctantly drawn attention.

DR. CORNISH.

THE *Madras Weekly Mail* has the following observations on Dr. Cornish:—"The *Times of India* states that the Government of India declined to confer any distinction whatever upon Dr. Cornish, the Sanitary Commissioner of Madras, whose labours in connexion with the famine are as widely known in England as in India—although his name had been sent up by the Madras Government in its proper place at the head of the list of those worthy of honour in that Presidency. In Madras it is rumoured that the C.S.I. which the Madras Government hoped to be the means of conferring on Dr. Cornish, was conferred upon Mr. Garstin, instead of the C.I.E. for which that gentleman had been recommended by the Duke of Buckingham. Two civil servants and one military (police) officer were 'starred' for services in the famine, but the Medical Service was left out in the cold, not on account of any neglect of the local Government in bringing its claims to the notice of the

supreme Government, but because Dr. Cornish was one too many for Sir Richard Temple in the great diet question." In other words, Dr. Cornish committed the unpardonable indiscretion, in his discussion on this question with the delegate of the supreme Government, of being in the right, and of proving that the Madras Government, as against the supreme Government on the same question, had from the first been in the right. The recommendation of Dr. Cornish, therefore, by the Madras Government for the C.S.I., gave the opportunity to the supreme Government of killing two birds with one stone—namely, of inflicting a petty slight upon the Madras Government, and snubbing Dr. Cornish. Nothing could so clearly indicate the ignoble position which the supreme Government held during the famine, and its imperfect appreciation, even to the last, notwithstanding its inexhaustible profusion of big words and sentences, of the magnitude of that disaster.

MEDICAL PRACTICE IN SOUTH AFRICA.

AN anonymous correspondent signing himself "Truth" writes to us, and, after warning medical men in very emphatic language not to go out to South Africa, says:—"It is quite possible to make £800 a year in South Africa, and to save a third, but it cannot be done without hard work, and must be gradually accomplished." The writer refers to an article that appeared in THE LANCET of June 15th, and thinks that we "have been misled by a too favourable representation of medical opportunities in South Africa." We must leave our would-be colonial readers to judge whether it is worth their while to go out to the Cape "to make £800 a year, and to save a third." Can many in England save a third of their net incomes at the present time, even with hard work? We think not. The places said to be quoted in a haphazard way were, at the date of the article, practically unprovided with efficient medical aid, and we are very glad to know that the war and other circumstances have brought a fair supply of medical men into a country that until quite recently has been comparatively destitute of doctors.

Since the above was in type we have received from the colony in question a paragraph that is said to have appeared in a pictorial *Charivari* published weekly at Cape Town. A recent visit of the editor to England does not appear to have removed colonial rust. It is asked in effect, in the aforesaid paragraph, why, if the Cape abounds in good openings for medical men, are district surgeoncies, &c., so often vacated? Our reply is (1) that some men earn money there quietly and quickly, and come home to spend it or to invest it in a practice; (2) that more, unfortunately, relieve the monotony of existence by gambling or drink. Our courteous contemporary notwithstanding, let those who doubt the above remarks ask as to their veracity of anyone (doctor or layman) who has had, say, three or four years' experience of Griqualand West, the Orange Free State, or the northern parts of Natal.

URBAN SUMMER DIARRHŒA IN 1878.

THE fatality of summer diarrhœa in England is mainly confined to the three months of July, August, and September. The last weekly return of the Registrar-General enables us to review the diarrhœa fatality of the past summer in twenty of the largest English towns, including London, and estimated to contain a population of seven millions and a quarter of persons in the middle of the year. The annual death-rate from diarrhœa in these twenty towns during the thirteen weeks ending last Saturday averaged 4·2 per 1000, against 3·9 and 2·3 in the corresponding periods of 1876 and 1877. Summer diarrhœa in these twenty towns has been more fatal this year than it has been since 1873, when the annual rate from this disease was equal to 4·5 per 1000. In London, during the thirteen weeks now under notice, the death-rate from diarrhœa was equal to 3·3 per 1000; while in the nineteen provincial towns, with an aggregate population nearly equal to that of London, the rate averaged 5·1 per 1000. Among these nineteen towns the lowest diarrhœa death-rates in the past summer were 2·4 in Oldham, 2·5 in Bristol, and 2·8 in Plymouth; the highest rates were 6·5 in Salford, 7·0 in Leeds, 8·7 in Leicester, and 10·2 in Hull. Whether we compare the diarrhœa rates in Oldham and Leicester, as two manufacturing towns in which a large proportion of the female population is employed in factories, or those in Bristol and Hull, as two seaport towns in which few women are so employed, the contrast in the diarrhœa rates during the past summer is sufficiently striking to demand investigation. Leicester and Hull, among these twenty towns, have almost invariably, in recent years, shown the highest death-rates from diarrhœa, but the rate in Hull during the past summer has exhibited a remarkable increase. The death-rate from diarrhœa in Hull, which had been equal to 5·7, 5·0, 5·8, 5·9, and 4·6 in the third quarters of the five years 1873-77, has during the past summer risen to 10·2—a higher rate than has prevailed in any of these twenty towns in any of the past six summers, except the rate in Leicester in 1873, which was equal to 10·4. We shall await with interest the report of the medical officer of health for Hull upon the recent remarkable fatality of diarrhœa in that borough.

THE CAUSATION OF TYPHOID.

THE Fiske prize for the present year has been awarded by the Rhode Island Medical Society to an essay by Dr. George E. Waring, jun., of Newport, R.I., on the Causation of Typhoid Fever. This essay is of interest, as, while it accepts the theory of the dissemination of the disease by the excremental discharges of the sick, the disease once existing, it advocates a theory of the development of the disease from "the exhalations of decomposing matters in dung-heaps, pigsties, privy-vaults, cellars, cesspools, drains, and sewers, or it may be (according to Pettenkofer) to the development of the poison deep in the ground, and its escape in an active condition in ground exhalations." To these conditions are added the exhalations from freshly-exposed mud, as after the emptying of mill-ponds. In Rhode Island, as also, according to Dr. Waring, in the State of Massachusetts, it would appear that typhoid fever is "a disease of the country rather than of the town," and it is from the study of isolated outbreaks of the malady in the country that the author of the essay comes to the conclusion that the conditions ordinarily assigned as determining typhoid fever must be added to.

CITY OF LONDON SCHOOL.

A FEW weeks since we commented upon the remarks made by the Rev. Dr. Abbott, head master of the City of London School, complaining of the bad state of health among the boys generally, and attributing it to the overcrowded condition of the school, the cramped nature of the site, and the want of an adequate playground. We are now pleased to learn that the subject has received the attentive consideration of the School Committee, and they have agreed to recommend to the Court of Common Council that the present site be sold, and the school established on a new site on the Thames Embankment near Blackfriars-bridge. The removal of the school from its present premises in Honey-lane Market to the more open and accessible position on the Thames Embankment is a step in the right direction. But we regret that the opportunity of removing the school to some convenient suburban locality has apparently been overlooked. Experience shows that the excellence of the educational advantages of the City Schools induces parents to send their sons from distant suburbs daily

in order to attend these institutions. It seems to us that a reversal of the tide could be easily effected, and with great benefit to both city and suburban lads. If some arrangement could be come to by the large City Companies so as to distribute their schools equally among the metropolitan suburban districts, their removal from the close City air to more open spaces in the country would prove highly beneficial to the health and the moral and physical development of our town boys; whilst the educational wants, which are certainly great, of our suburban districts would be met. We therefore hope that before the question of the Thames Embankment site is finally settled an endeavour will be made to induce the school committee to consider the advisability of removing the school further afield.

SALT WATER IN SURGERY.

COMMON SALT has been, perhaps, somewhat neglected by medical practitioners. So at least thought some members of the French Association when, at its recent meeting, a paper was read by M. Houzé de L'Aulnott, of Lille, upon the employment of solutions of this domestic article in the treatment of abscesses and empyemata. In the latter class of cases he thought such solutions of especial value in washing out the pleura, on account of the salt water being of higher density than pus, and yet not injurious to the tissues. By its use as an injection the pus could be all evacuated in cases where other injections failed. He described sundry cases where its employment met with good results, but the report we quote from (*Progrès Médical*) does not enter into details. He has also used it in the treatment of wounds; and stated that its application is not very painful, being less so than alcohol-and-water. In the discussion that followed, M. Potain said that he had successfully treated a case of suppurating hydatid of the liver by this means; but he thought that if salt was so much neglected at the present day, it was because its virtues had been too much lauded in olden times. In answer to M. Azam, who asked whether the salt acted as a disinfectant, or was only of value on account of the density of its solution, the author of the paper said that the action of salt was multiple, it having an effect not only on the wall of the suppurating cavity but also on the blood. Saturated solutions should be used if the effect of their density was wanted, otherwise solutions of 1 to 10 or 1 to 5 gave good results. A difference of opinion arose between some members as to the efficacy of salt water in the treatment of wounds, one saying that he had seen good results from the use of sea-water, others testifying that healing was retarded by it. These ill-results were attributed by M. Houzé to the sand contained in sea-water. Simple solutions of pure salt did not retard healing.

THE IMPORTANCE OF HOSPITAL SUNDAY.

OUR Birmingham correspondent writes:—"The appeal just issued by the committee for periodical collections for local charities in Birmingham, announcing that the annual collections on behalf of the medical charities will this year be appropriated to the Queen's Hospital, is well worthy of attention. The appeal is accompanied by a report from the committee of that institution, which shows that the permanent expenditure of the hospital is far in excess of its permanent income. The total expenditure in 1877 was £8383, while the subscriptions barely reached £3000, and the entire income from all sources, including £800 from working men's contributions on 'Hospital Saturday,' did not exceed £4500. To 'Hospital Sunday,' then, the committee look not only for the means of paying their present heavy debt, but also for funds to enable them to keep open the doors of the charity. The value of such an institution as the Queen's Hospital to a large manufacturing centre like Birmingham is beyond all question, and I am sorry to find that its very existence is imperilled by the want of adequate funds. It is to be hoped that Hospital Sunday will relieve the institution from its present difficulties, and produce a handsome list of new subscribers."

THE MEDICAL CONGRESS AT PISA.

THE melancholy circumstances under which the Chevalier Cammillo Parrini, secretary to the Directing Committee, and superintendent of the Medico-Chirurgical Museum, departed this life, threw a cloud over the Congress on the third day of its proceedings. Many of the delegates returned to their homes, and though the programme was loyally carried out, the sections had lost much of their animation, and the discussions much of their interest. On Saturday the Congress rose, having previously resolved, on the motion of Professor Giampietro, of Naples, to meet that time two years at Genoa. The next Congress of parochial practitioners will be held in 1879 at Naples. The mayors of these two cities, on learning by telegraph the decision of the respective Congresses, replied also by telegraph, acknowledging with gratitude the compliment that had been conferred.

VACATION SANITARY WORK IN THE CITY.

WE are disposed to conclude, from a report of the medical officer of health for the City of London, Dr. Sedgwick Saunders, that the sanitary authority for that important section of the metropolis, following the custom of a good housewife, takes advantage of the vacation for a general overhauling of its household. Such, at least, is a reasonable inference from a report for that period, which shows an inspection of 1086 houses, a formidable raid upon provision dealers, and destruction of unwholesome meat, and further (and, let it be hoped, successful) measures for keeping in a greater state of cleanliness Thames-street, in the vicinity of Billingsgate. We like the notion of a medical officer of health taking advantage of the vacation for a special overhauling of his district, or of parts of it, and would commend it to the attention of medical officers of health generally.

YELLOW FEVER.

THE epidemic seems to be decreasing in all towns except Vicksburg, its prolongation having been caused by the return of the refugees, who had withdrawn when the fever first made its appearance. The last returns show fifty-one deaths at New Orleans, twenty-eight at Memphis, and fourteen at Vicksburg. The Government has issued fifty-four thousand rations to the sufferers, and is already arranging an investigation into the causes of the epidemic. It would be an advantage if the Privy Council and Local Government Board were authorised to send out a skilled officer for the purpose of pursuing a like investigation. The information reaching us from various quarters tends to show that there is still much to learn, and a great deal which is already known is fragmentary, and requires to be carefully compiled and tabulated for the use of those whose duties carry them into a zone where the disease may readily assume an endemic character.

THE CAPACITY OF THE STOMACH.

IT has been found by J. W. Neubauer that if the exit-pipe of a stomach-pump is bent upwards and connected with a vertical glass tube, when the pump is full the level of the fluid in the glass tube is the same as that in the stomach, provided the access of air to the stomach is unimpeded. A bougie with a double tube is the most convenient for this, by which the free passage of air to and fro may be secured. It is thus easy to read off from the glass tube the level of the fluid in the stomach, and, from data calculated by Neubauer, to infer what is the capacity of the stomach.

Only a few observations have been made on men with normal stomach, but these show the lowest ascertainable level of the contents of the stomach on a deep inspiration is at just above the umbilicus. If 200 cubic centimetres of water are injected into the stomach, the level of the contents of the viscus rises in all cases, and if 500 cc. are injected it rises at least above the middle of the distance between the ensiform cartilage and the umbilicus. After the injection of 1000 cc. of water, the level is at or above the point of the ensiform cartilage. In order to raise it to the level of the junction of the sternum and ensiform cartilage, from 775 cc. to 1525 cc. of water is necessary, and the needful quantity varied in the same individual at different times by as much as 300 cc.

CYPRUS.

WE regret to record the death of Surgeon-Major R. Menzies, second senior medical officer at Cyprus. This gentleman was invalided, and died on his way to England. The particulars of the case are not to hand as we go to press. The latest news from the island announces that ague is replacing the remittent fever, and although there is no marked decrease in the prevalent sickness, the malady is of milder type. The change of weather expected in October and November will, it is hoped, produce a greatly improved condition of affairs.

THE CASE OF DODWELL.

WE are gratified to find that an official inquiry has been ordered in the case of Dodwell. Drs. Blandford and Maudsley have visited the prisoner at Broadmoor, and reported to the Home Secretary. It remains to ascertain what their opinion is. We trust the publication of the report will not be unnecessarily delayed.

ON the recommendation of the Government of India Her Majesty has been pleased to confer a good-service pension on Deputy Surgeon-General Henry Mills Cannon, M.B. This gentleman served in medical charge of army headquarters during the Punjab campaign, 1849-50. He has received a medal and three clasps, the thanks of the supreme government and of the local government, and is recommended by the commander-in-chief for brevet promotion. General C. T. Keyes, C.B., who commanded the Jowaki Expedition, in commending the officers engaged in it, has not, as is too often the case, forgotten the services of his medical staff; he specially notices Surgeon-Major G. Farrell, 2nd Punjab Cavalry, on whom the duty devolved of organising the field-hospital at Gumbat, and in attending the greater portion of the sick and wounded who were sent to the rear. In these duties he displayed much skill and energy with the very inadequate means at his disposal. To Surgeon-Major J. W. N. Johnson, 5th Goorka Regiment, for arranging the field-hospital, he feels much indebted for his ever ready co-operation. Surgeon-Major T. P. Wright, of the 29th Punjab Native Infantry, and Surgeon-Major A. P. Holmes, of the 1st Sikh Infantry, the senior medical officers at Camp Turki, are honourably mentioned for the manner in which they carried out their responsible duties.

THE St. Albans Corporation have been recently summoned by the proprietors of silk mills in the neighbourhood for polluting the river Ver, on which these mills are situated, with sewage, under (we presume) the Rivers Pollution Act. Here the manufacturer is prosecutor, and not, as usual, the defendant. The Ver is a charming little stream that runs along the bottom of the hill on which the glorious old Abbey of St. Albans is built, and, speaking from personal observation extending over nearly thirty years, the purity of the water in the neighbourhood of the town has lately much deteriorated, and the river has become a receptacle for dead dogs and cats, kettles, &c. It is to be hoped that Messrs. Woollam and the other mill proprietors in the neighbourhood will keep up continuous pressure until the Urban Sanitary Authority divert their refuse material, which in this case cannot be a very difficult matter, for St. Albans stands upon a fairly high hill, on the top or sides of which at least three-fourths of the houses are built, including the parish of St. Michaels, the one chief street of which has a continuous and gentle slope. But the town, surrounded by districts that have combined for sanitary purposes, and possessing a very excellent medical officer of health, was until lately still outside, having declined to join the combination. If this be still the case, we counsel the mill proprietors to urge union, and so precipitate the consideration of the sewage reform required.

OUR contemporary, the *Mid-Surrey Advertiser*, is to be highly commended for its activity in bringing to light all sanitary shortcomings occurring from time to time in that section of the county over which it exercises literary supervision. Two or three weeks ago the isolation of fever cases was discussed at a meeting of the Guildford Urban Sanitary Authority, the father of a child sick with scarlet fever having declined to allow her to be taken to the workhouse in order to avoid infection. The consequence was that the fever spread, and did a great deal of mischief. It was, however, pointed out that the board had no power in the matter until they provided a place for the reception of cases of infectious and contagious disease. As usual, it was agreed to shift—or rather to endeavour to shift—responsibility by "calling the attention of the guardians to the matter."

AN indefinite variety of continued fever has appeared at Madrid, wrongly called by some yellow fever.—*The Times* states that, according to reports received from Casoblanca, 377 deaths occurred from cholera in September, out of a population of 7000 persons; and from 60 to 70 deaths resulted from the same cause at Fez and Mequinez. The Spanish authorities are most ingenious in keeping the rest of the world profoundly ignorant of their internal sanitary condition—only equalling the ingenuity that they and their neighbours, the Portuguese, exercise in obstructing commerce on the most frivolous pretexts.

ANOTHER woolsorter in Bradford has been added to the already too numerous list of victims who have fallen a prey to the noxious emanations arising from Van mohair. It is satisfactory to learn that, at the suggestion of Dr. Bell, Messrs. Ambler and Sons have given orders that for the future the mohair shall be washed or exposed to air twenty-four hours previous to sorting. Other firms will, it is hoped, recognise their duty at once, and take similar precautions for the cleansing of their wool.

SEVERAL sailors died recently at Saigon, in China, from the inhalation of the fumes emitted by a ship's cargo. It turned out that the chief ingredient of this destructive vapour was carbonic acid gas "generated from a wet cargo of pepper and some kind of bark, which had been stowed in the hold only some three or four days." This is a vague and unsatisfactory description, but, as five persons were killed, some efforts should be made by the Marine Department of the Board of Trade to procure full particulars of this fatal casualty.

WE have reason to believe that it is the intention of Mr. Callender, of St. Bartholomew's Hospital, to proceed to the United States early in December, with the intention of seeing the practice and teaching arrangements of the distinguished surgeons of America.

THE Poor-law and Lunacy Commissioners, having been instructed to extend their inquiry into the condition and management of the insane poor in Ireland, have now under consideration a proposal to establish, in connexion with workhouses, auxiliary asylums for imbeciles and incurable lunatics.

LEPROSY appears to be on the increase in Spain. No less than 116 fresh cases occurred last year in the province of Valencia. The authorities are about to establish a leper hospital in Alicante.

The Lancet Analytical Commission.

REPORT
ON THE
FOOD PRODUCTS
EXHIBITED IN THE
FRENCH AND ENGLISH DEPARTMENTS
OF THE
UNIVERSAL EXHIBITION OF PARIS.

No. V.

As was the case with the baking powders exhibited at the Exhibition, so with the *Sauces*—so numerous are they that we feel some degree of embarrassment in determining how best to deal with them. We believe that there is scarcely another country in which sauces are so much used as in England; in France and Germany they are but rarely employed—in fact, the people of these countries seldom partake of any condiment with their food, and when they do they are usually of the mildest.

Following an alphabetical order, the first sauce we shall notice is one prepared by Mr. James Ball, of Duke-street, London, bearing the extraordinary name of "Qui-hi Sauce." It is said to be made from an original Oriental receipt, and the sauce certainly possesses all the qualities which usually characterise Indian condiments. It is of a reddish colour, so thick that it will scarcely pour out of the bottle, of a particularly fragrant odour, and of a fruity, acidulous, and pungent taste. It is doubtless a sauce of very superior quality.

Messrs. Batty and Co. exhibit their well-known "Nabob Sauce," described as prepared from Indian condiments. This is a very strong and pungent sauce, which may suit the palates of those who like highly-seasoned dishes. Messrs. Batty also display a sauce into the composition of which truffles enter, well suited for use with fish; and a "Beef-steak Sauce," which is sharp, pleasant, and appetising.

Another sauce exhibited is the "Royal Welsh Sauce," manufactured by Messrs. R. Evans and Co., of Wrexham. It is almost free from sediment, and in it one can distinguish the pleasant flavour of walnut and mushroom catsup.

The "Nottinghamshire Sauce" of Mr. Patchitt, of Nottingham, is a clear, light, pleasant sauce, which has the recommendation of not being over hot and pungent.

The last sauce which we shall notice in this place is the "National," prepared by Mr. James Pratt, of Oxford-street, London; this belongs to the class of thicker and richer sauces, and is one of the nicest and pleasantest of those in the Exhibition which have fallen under our observation.

There are but three English exhibitors of *Mustard*, one of these being Messrs. Barringer and Brown, of Mansfield. This firm exhibits some excellent samples of "Genuine Mustard." A few years since such an article as genuine mustard was scarcely to be met with anywhere, but now, not only is it made by every respectable firm of mustard manufacturers, but it constitutes a considerable portion of their trade. At the time of which we speak, what was called mustard consisted almost invariably of a mixture of wheat-flour, turmeric, and mustard, and this was always sold as, and under the name of, mustard. This is, however, no longer the case. The mixture is either openly acknowledged, or the mixed article is termed "mustard condiment."

As might be expected, one of the three exhibitors of Mustard is the firm of Messrs J. and J. Colman and Co., of Norwich. At every exhibition this well-known house does not fail to put in an appearance, the mustard bearing their name being, in fact, visible everywhere. They, of course, also exhibit samples of genuine mustard, of which, indeed, they were one of the first makers, and of a quality as fine as the best seed can furnish when manufactured with the most perfect machinery and the greatest possible care. We have already remarked that English and French mustards are prepared in a totally different manner, English mustard consisting of the fine powder of the seeds of white and brown mustard mixed together in different proportions, the husks of the seeds being entirely rejected. In the British machinery department, Messrs. Colman and Co. have erected very perfect machinery for the manufacture of pure mustard by the English method, and they daily exhibit to crowds of interested witnesses all the details of the process. They also very liberally present to all who may ask for it a beautiful little tin of their genuine mustard.

The third exhibitor of mustard is the very old-established house of Messrs. Keen, Robinson, and Belleville. They also display samples of genuine mustard, we doubt not of unsurpassed quality. Not to be outdone in liberality, they also present to those who ask for it, a very pretty little tin of mustard. It would appear as though English mustard were coming into use to some extent in France, for not only is it to be found at all the refreshment-rooms in the Exhibition, but it is now no uncommon thing to meet with it at many hotels and restaurants.

There are no less than four exhibitors of *Curry powder*, Indian sauces, and other Indian delicacies.

Messrs. Edmunds and Cater, of London, exhibit the "Empress Indian Curry Powder." They have communicated to us the receipt for its preparation; it is a very excellent curry powder made with the best materials. They also show the "Empress Indian Curry Paste," which differs from the former in many respects, but notably in containing Indian and other fruits. It is a very nice preparation. Messrs. Edmunds and Cater are likewise manufacturers of the "Empress Indian Chutnee Sauce," and the "Great Western Baking Powder."

Messrs. Dickenson and Co., London, are also exhibitors of Indian sauces and pickles.

Messrs. Green and Stembridge, of London, display a variety of Indian curry powders, Cayennes, chutnees, Guava jelly, and many other Indian preserves and delicacies; curry powders from Madras and Calcutta; genuine Nepaul pepper and chutnees. There are no less than five kinds of chutnee—Lucknow sweet chutnee, Tirhoot chutnee, Cashmere chutnee, Bengal Club chutnee, and Colonel Skinner's chutnee. Two of the preparations exhibited by this firm possess a medical as well as dietetic interest—namely, "Bael Preserve," so efficacious in cases of dysentery; and "Mustard Oil," which is so excellent a liniment for rheumatism. The above preparations, unlike many which are sold as Indian, are really so, being prepared with the greatest care by the firm itself in Calcutta, and they are doubtless all as good of their kind as can be made or obtained. Messrs. Green and Stembridge are likewise manufacturers of English pickles, sauces, and jams. The pickles which came under our observation were entirely free from copper, as proved by their colour, and the jams were of the first quality.

The last firm to be named as exhibitors of Indian curries are Messrs. J. Halford, of St. Martin's-lane.

There are several well-known firms who display English pickles, jams, bottled fruits, and the hundred and one things which enter into the business of a provision merchant or Italian warehouseman. The firms alluded to are those of Messrs. Barnes and Co., Messrs. Batty, Messrs. Crosse and Blackwell, Mr. Maw, and Messrs. J. Moir and Son.

It is impossible to notice all of the various articles shown

by these firms, we will therefore confine our observations to one or two particulars, and to a few only of the good things displayed.

The pickles exhibited by Messrs. Barnes, of London, embrace all the usual kinds, and from their dull olive-green colour, it may be safely declared that they are wholly free from copper. The same may be said of the green vegetables and fruits preserved in bottles, the rhubarb, greengages, apples, and plums. The like freedom from copper characterises the greengage and gooseberry jams.

Conspicuous among the exhibits of Messrs. Batty and Co. are their now celebrated Nabob Sauce and Nabob Pickles. The former we have already noticed, and the pickles are too well known to need description here. Other articles we noticed were Scotch marmalade and that very delicious pickle the "Indian Mango."

The case containing the multitudinous articles exhibited by the world-famed house of Messrs. Crosse and Blackwell is not only of very large dimensions, but altogether a very handsome and suitable structure. We shall not attempt to describe any of the various articles which it contains. Preserved provisions of nearly all known kinds are to be found here, and all of the purest and best quality.

Some of our readers will doubtless remember the part played by this firm at the period when the reports of this Commission, in the preparation of which Dr. Arthur Hill Hassall played so signal a part, drew such general attention to the subject of adulteration. It was Mr. Thomas Blackwell who voluntarily came forward as a witness before the first Parliamentary Committee on adulteration (of which the late Mr. Scholefield was the chairman), and whose evidence on that occasion was most important, and which claimed so strongly the attention of the Committee. He unhesitatingly avowed that many articles of which he had cognisance were systematically adulterated, adding his testimony to the truth of many of the statements first made known in this journal as to the prevalence of adulteration. He declared at the same time his disapproval of all such practices, and it is but justice to him to state that, in the conduct of the business of the large firm over which he presides, it always has been and still is his constant endeavour to avoid even the semblance of adulteration.

Mr. Thomas Maw, of Leeds, exhibits "Windsor Pickles," which include all the usual kinds of English pickles, put up in square and liberal-sized bottles. The vegetables are young, well selected, and of the olive-green colour which denotes entire freedom from copper, and they are preserved in the pure malt vinegar of Messrs. Hill, Evans, and Co, of Worcester. Mr. Maw also exhibits a sauce to which he has given the name of "Excelsior Relish." This is really a very nice sauce, and it has the further recommendation of extreme cheapness.

Amongst the other exhibitors under this head, Messrs. Moir and Son also display a variety of articles, as Pickles, Jams, Bottled Fruits, &c. The pickles were quite free from copper, as we believe they have been for some years past. This firm makes a speciality of their Marmalade. On account of the great demand for Seville oranges during the last few years, the necessary attention to their careful shipment has not been given, and the result, we are informed, has been that although 140 lb. weight of oranges are put into each box at Seville, rarely more than 90 lb. of the fruit arrive here in a usable condition, the rest being only fit to throw away. Even the sound oranges become very much deteriorated, and the quality of the marmalade made therefrom consequently very much affected. To meet this difficulty Messrs. Moir and Son are establishing a factory at Seville, being thereby enabled to receive the oranges from the gardens daily in perfect condition, and thus secure the full flavour of the fruit. A part only of the manufacture can be carried out at Seville, but the fruit being so far preserved will be brought to London, and the process completed here.

We now pass on to notice many of the various beverages exhibited; and first we will speak of those which are free from spirit, as the *Aerated* and *Mineral Waters*.

The well-known firm of Messrs. Bewley and Draper, of Dublin, exhibits Soda-water, Lemonade, Ginger-beer, and pale Ginger-ale; also, artificial Seltzer and other mineral waters in imitation of the natural springs. They claim that their soda-water does really contain soda, which is so frequently absent from much of the so-called soda-water sold. They call attention to the purity of the water used and the excellence of all the materials employed by them in their manufacture, and they further state that all their aerated waters are absolutely free from lead. They have received several medals for the excellence of their manufacture. We have examined several of the waters above referred to, and found them to be of excellent quality, carefully put up in cylindrical bottles of great strength.

The "Ginger-ale" is a comparatively new beverage, which is apparently coming much into use, especially in winter and on board ship, in consequence, mainly, of its containing a much larger quantity of ginger than "ginger-beer," and hence acting more strongly as a cordial.

Messrs. Cantrell and Cochrane, of Belfast, are also well known as manufacturers of aerated and mineral waters. They exhibit not only the usual kinds, but some which are out of the common, and amongst these are their "Aromatic Ginger-ale," "Aerated Sarsapilla," "Aerated Tonic Bitters," "Supercarbonated Lithia-water," "Aerated Dandelion," "Aerated Quinia," and also "Montserrat."

The aromatic ginger-ale is evidently a speciality of the firm. They state that it is not analogous to ginger-beer, which is a fermented drink, and contains, therefore, a small quantity of alcohol, but that the ginger-ale is unfermented, and consequently non-alcoholic. They describe it as "sparkling and clear as the choicest champagne, as having a most agreeable odour, perfectly free from any intoxicating quality, and yet eminently warming and invigorating, pleasant to the taste and pleasant to look at." They claim to be the first preparers of this beverage, and they state that they export it largely to hot countries, and that they supply the Cunard fleet and many other steamers and ships. Strange to say, Messrs. Cantrell and Cochrane recommend their ginger-ale as a substitute for baking-powder. "Baking-powders liberate carbonic acid gas, and so leaven the dough, but do nothing else, while Cantrell and Cochrane's ginger-ale not only supplies the carbonic acid gas in abundance, but supplies also sugar, ginger, and aromatic flavouring."

The most novel aerated beverage brought out by Messrs. Cantrell and Cochrane is one they have termed "Montserrat." This is prepared with the juice of the Montserrat lime, and it forms a very refreshing, wholesome, and pleasant drink.

It will be seen from the enumeration given above, that this firm manufacture several descriptions of medicinal aerated waters, and certainly no pleasanter way is to be found of administering some remedies, and of covering and concealing their unpleasant taste, than in aerated waters. This firm call attention to the special purity of the water from their well, which furnishes a daily supply of over 17,000 gallons. They also dwell upon the absence of lead in any of their beverages. This firm has likewise earned its laurels in the form of several medals. We have made trial of some of the waters above referred to, and found them to be in every respect of very superior quality.

Messrs. Evans and Co., of Wrexham, some of whose exhibits we have already noticed, display samples of an aerated mineral water which they call "Zoedone." This they have patented. It contains the soluble phosphates of lime, iron, soda, and potash in medicinal quantities. A great difficulty experienced by the patentees has been to keep the iron from precipitation, so that the beverage might remain clear and bright, an object which they state they have at length succeeded in accomplishing. Messrs. Evans' "Zoedone" is no doubt a very efficient and pleasant vehicle for the administration of the but little soluble phosphate of iron. The manufacturers state that they use very great precautions in the preparation of all their beverages to avoid metallic contamination.

The British and Foreign Mineral Water Company, of Glasgow, are exhibitors on a large scale, not only of aerated beverages, but also of a great variety of artificial mineral waters, such as those of Carlsbad, Kreuznach, and Pyrmont. The Company take the greatest care, by the arrangement and structure of their machinery, that neither the carbonic acid nor the different chemical substances which they employ should come into contact with any metal other than that of pure tin, the possibility of contamination with lead, copper, or other dangerous metal, being thereby entirely avoided.

The Aerated Waters prepared by Messrs. Sampson Bros., of Sutton-in-Ashfield, are prepared with scrupulous care, and with the aid of the very best machinery. They exhibit analyses of the water used by them, which shows it to be one of great purity.

We have already referred to the great use made of *Fruit syrups* in France, and the frequency with which they are drunk with aerated waters, the combination being a most refreshing and agreeable one. Messrs. Evans manufacture a Lemon and a Raspberry Syrup, which may be used with advantage in the same manner.

We now pass on to notice some of the *Lime Juices*, Lime-juice Cordials, and other similar preparations, which have of late years come so much into vogue.

While lemon-juice, as the name implies, is the juice of the lemon, expressed in countries—as the West Indies—where the lemon-tree grows luxuriantly, so lime-juice is the expressed juice of the lime, a species of lemon of smaller size, rounder form, and of much greater acidity—that is to say, the proportion of citric acid in it is greater than in the ordinary lemon. The expressed juice is treated on the spot with sulphurous acid, and sometimes with other preservatives. The juice is then put into casks, and imported in this crude state into England, undergoing after its arrival a further purification by filtration and the addition of other preserving substances. It is then, after being "standardised," or reduced to one uniform strength, in the state in which it is sold in this country as lime-juice or lemon-juice. These juices are sold either pure and unmixed, or, as we shall presently see, in various combinations.

Among the juices that we noticed and examined were those of Messrs. Henley and Son, of London, long-established and well-known makers of cider and vinegar, who exhibit their lime-juice and lemon-juice cordials. These consist of a certain proportion of the juice of the respective fruits, with sugar and spirit, or alcohol. The small addition of spirit serves to cordialise the tart and acid juice, to render it more palatable, and to make it better tolerated by the stomach. These cordials are taken either with the addition of water or they are themselves added to some aerated or spirituous mixture, such as gin or rum and water. These lime- and lemon-juices are useful additions to spirit and water, since they add to them a wholesome ingredient, furnish a palatable drink, and probably render the drinker satisfied with a much smaller portion of spirit than would otherwise be the case. The lime and lemon-juice cordials of Messrs. Henley and Son we found to be pleasant preparations when employed in the manner above described, and they also were in a very satisfactory state of preservation.

Other exhibitors of Lime-juice in a pure form as well as in several combinations are Messrs. L. Rose and Co., London. The principal of their preparations are "Refined Lime-juice," "Lime-juice Cordial," "Lime-juice Champagne," and "Rosina," the whole of these being entirely free from spirit. The Lime-juice Cordial, owing to its being prepared in a manner which ensures it keeping for a long time, is largely imported into hot and tropical countries, where, no doubt, it affords, when mixed with water, a wholesome, refreshing, and grateful beverage. It is also supplied largely to licensed victuallers, who sell it as an effervescent drink in soda- or potash-water, or blended with spirit. The Lime-juice Champagne is an aerated beverage, containing a fair proportion of lime-juice, and it is, in our opinion, one of the nicest and most refreshing of all the lime-juice preparations. Messrs. L. Rose and Co. have a large manufactory at Leith for its preparation. Lastly, the "Rosina" is a lime-juice preparation, cordialised by the addition of Jamaica ginger, to give it warmth as a beverage for winter use. In addition to the above, Messrs. Rose and Co. make another preparation of lime-juice, which they call "Limetta Rum Shrub." It is unnecessary to make any remarks in praise of these several preparations. Lemon- and lime-juice being their basis, they must all be pronounced wholesome, purifying, and refreshing.

This is, perhaps, the best place to notice the different kinds of Flavouring Essences. There are three firms who exhibit these preparations—Messrs. Bush and Co., Hackney; Messrs. Dunn and Hewett; and Messrs. J. Mackay and Co., of Edinburgh. Messrs. J. Mackay and Co. display quintessences of lemon-peel, vanilla, almonds, and ratafia, of which they have been manufacturers for nearly fifty years. These are all of very good quality, and we ascertained that both the quintessences of almonds and ratafia were entirely free from even a trace of prussic acid. But there is one essence prepared by this firm which, from its peculiar novelty, deserves special notice. This is their "Claret-cup Essence," for imparting to claret-cup the flavour of borage, curaçoa, and lemon-peel; one teaspoonful being sufficient for two quarts of claret-cup. The preparation is guaranteed to be perfectly harmless.

There is one firm, and one only, we believe, who exhibits samples of *British Wines*. Of these wines, going back to the early days of childhood, one has many pleasant recollections, but, somehow or other, later in life they ceased to be held in so much estimation, till at last we had almost forgotten their existence. The cheap foreign wines introduced of late years into this country have, we fear, interfered greatly with the home manufacture of wine, the trade in which, however, still flourishes to some extent, and especially in country districts. The best of these wines are orange and ginger, samples of which as made by Messrs. Evans and Co. we have examined, and found them to be pleasant and wholesome.

Notwithstanding the richness of France in wine, spirits, and liqueurs, our enterprising merchants have not been deterred from exhibiting some of the more noted alcoholic products manufactured in this country, and especially the national spirits—whisky and gin; indeed, the exhibitors of the first-named articles embrace some of the most renowned firms—Mr. James Catto, of Aberdeen; the Cork Distillery Company; Messrs. Dunville and Co., of Belfast; Messrs. Kinahan and Co., of Dublin; Mr. James Shiels, of Kelso; Mr. Vaughan Jones, of London; Messrs. Vickers and Co., also of London; and Messrs. William Williams and Sons, of Aberdeen.

The world-renowned malt beverages of England are also well represented in this Exhibition. Among brewing firms who are exhibitors the following are the chief:—Messrs. Bindley and Co., Burton-on-Trent; Messrs. Ballingall and Son, Dundee; The Anglo-Bavarian Brewing Company, Shepton Mallett; Messrs. Ferguson and Son, Reading; Messrs. Ind and Coope, London; the Lion Brewery, Reading; the New Westminster Brewing Company; and Messrs. Wright and Co., Maxton, Dover. To notice critically and in detail the several kinds and qualities of malt beverages exhibited by the above-named firms would lead to the extension of this article beyond the limits which can be assigned to it, and perhaps there would be but little utility in dwelling upon such details as are generally pretty well known to the English public. It will be sufficient to say that the reputation of this country for its malt beverages, its beers and porters, is thoroughly well sustained.

Near to the cases of the brewers are some exhibitors of preparations for clarifying and chemically treating beers and wines; these exhibitors may be regarded, in fact, as doctors for sick beers and wines. Of these we noticed the following: Messrs. A. Boake and Co., London; Messrs. Marshall and Holland, London; and Mr. Joseph Holmes, of Leeds.

We have at length brought to a close our notices of the Food Products exhibited in the French and English departments of the Universal Exhibition at Paris. The task has been a somewhat lengthened and laborious one, though it has been in the main a labour of love. The opinion we entertained of the French food collection has already been expressed, and, we need hardly remind the reader, in terms of satisfaction and commendation. Although the English collection is less extensive and complete, it is yet in many respects very excellent, and has the merit of being thoroughly English. The English exhibitors have evidently not gone to the Exhibition with the foregone determination to exhibit only such articles as they might consider to be most in accordance with French taste and usage, but they have wisely and boldly determined to give the preference to those articles for the manufacture and preparation of which their own country is especially famous.

In conclusion, it only remains to us to thank the various exhibitors, both French and English, for their readiness in affording us every information as to their exhibits, as also, in the majority of cases, for giving us the opportunity of personally examining and, where necessary, testing the peculiarities and qualities of their several specialities and products.

HEALTH OF IRELAND.—During the quarter ended 30th June there were registered in the 730 registrars' districts in Ireland, 36,634 births, being equal to an annual birth-rate of 27·3 per 1000 of the population; and 26,900 deaths, representing an annual mortality of 20·1 per 1000. Deaths from the principal zymotic diseases were beyond the average, representing an annual rate of 2·3 per 1000 persons, chiefly due to the great mortality from measles and whooping-cough, and the prevalence of small-pox in Dublin.

Correspondence.

"Audi alteram partem."

CARBOLIC ACID IN SMALL-POX.

To the Editor of THE LANCET.

SIR,—The prolonged discussion in your columns which has followed my suggestion of a new and local method of treating small-pox efficiently testifies to the interest felt in the subject, and to the professional consciousness of its great and pressing importance. The tenour of all the communications made to you has been decidedly in favour of the local use of carbolic acid. In all the cases in which it has been tried it has given some relief. It has relieved itching and irritation where it has been of no other benefit; whilst in many cases (some of them reported in the journals of former years) it has been thought to exercise a marked influence not only in preventing pitting, but also in diminishing the intensity of the secondary fever, and so lessening the violence of the disease.

A communication which I have recently received from an eminent surgeon to the Bengal cavalry gives further valuable testimony to its beneficial influence in his hands against the development of the eruption and the fatality of the disease.

On the other hand we have the evidence of Dr. Taylor as to its comparative failure in the most important respects when tried upon a large scale at the Small-pox Hospital, and especially in the worst, unvaccinated cases. He does not state, however, the strength of the local application employed, which is all-important.

I cannot think that nitric acid, though doubtless a powerful agent, would be (as has been suggested) a trustworthy substitute for carbolic acid for local application to the papules of small-pox. It is too destructive, and, moreover, would create a small eschar, and therefore a pitting of its own kind. The great merit of carbolic acid, on the other hand, is that, whilst it is quite powerful enough to destroy low germ life, it is inoperative (in small quantity) upon properly organised tissue.

After all, therefore, that has been suggested and written, and in spite of the undoubted *utility* of the external application of carbolic acid, I fear it must be said that a real *remedy* for virulent and confluent small-pox is still required, and I therefore venture again to suggest to those who may have the opportunity of treating cases of variola to give the method I have suggested a fair trial—viz., *the insertion into each vesicating papule of a small quantity of a strong solution of carbolic acid*,—a method which from its aborting efficacy in other local cutaneous affections, appears to me to give promise of good results in this more general and formidable disease.

Yours obediently,
PETER EADE, M.D.Lond., F.R.C.P.

Norwich, Sept. 23rd, 1878.

THE RHEUMATIC ORIGIN OF CHOREA.

To the Editor of THE LANCET.

SIR,—I should be glad to add to the precision of the details in my note on the rheumatic origin of chorea in THE LANCET of September 7th by stating, if you will allow me, the exact relationship, so far as it could be ascertained, of the rheumatic relatives to the thirty-two cases of chorea. Nineteen of the thirty-two were related to rheumatic individuals. In three instances the mother had had acute rheumatism; in two the father; in two both father and mother; in four a brother or sister; in three the grandparent or aunt. These had all suffered from what they called rheumatic fever. In the remaining five the history was only one of rheumatism, and it must be confessed is too indefinite to be taken without suspicion. But with regard to the history of acute rheumatism, I do not admit that this is doubtful in the majority of cases. The family records of hospital patients are, no doubt, very imperfect and unequal—nay, even distorted; but this is so not usually in the direction of exaggeration, but the reverse; and if a patient tells of previous rheumatic fever the majority may, I believe, be trusted. But for my own part I have never been satisfied with the mere statement of the patient. It has been my rule to inquire into the duration of the illness and the nature of the symptoms, and the description of the illness has usually tallied with the assertion; at any rate to this extent, that some illness had been experienced of the nature of acute rheumatism, gout, or osteo-arthritis. To that extent the opinion does admit of bias.

Inquiries with reference to the hereditary transmission of rheumatism for some years past amongst the in-patients at Guy's Hospital whilst I was medical registrar, and later amongst my own out-patients there and at the Evelina Hospital, have convinced me that children whose parents or close relatives have suffered from acute rheumatism are more liable than others to a series of symptoms or groups of symptoms. These are—acute rheumatism itself, of course, and also chorea, night terrors, a persistent form of anæmia, headache, and a condition difficult of description otherwise than as a slight chorea, which parents describe as nervousness. I should regard these affections as so many variations from some common ancestral type, perhaps acute rheumatism. I do not see that it is necessary in order to establish the reality of the relationship, that acute rheumatism should have pre-existed in each case. Evidence seems to me to show that acute rheumatism reappears upon transmission as acute rheumatism in many cases, but sometimes not so, but as chorea, or some of those conditions just named. But, after all, perhaps this is a question independent of the one raised by Dr. Sturges, which I now understand to be, "Is acute rheumatism the immediate cause of chorea?" Upon that question, as I said before, I am inclined to assent to the answer given by Dr. Sturges, but without admitting that the doctrine of the hereditary transmission of the diathesis is in the slightest degree jeopardised. I would add that Dr. Sturges rather overstates me when he says that I deny that rheumatism is a direct and immediate cause of chorea. I only said that my figures supported his upon that point. But I expressly forebore to say more for two reasons: first, that, as he subsequently mentions, acute rheumatism is often so slight and transient in children that it attracts no attention, and therefore may have existed when there is no history of its occurrence; and, secondly, that previous writers—I may mention particularly M. Sée and Dr. Pye-Smith—have dealt with far larger numbers than my own, and have come to an opposite conclusion.

I am, Sir, your obedient servant,
JAMES F. GOODHART.

Weymouth-street, W., Sept. 21st, 1878.

MOLLUSCUM CONTAGIOSUM.

To the Editor of THE LANCET.

SIR,—As most German and some few English observers still doubt the contagious nature of the molluscum contagiosum of Bateman, any cases which strikingly illustrate this strange and peculiar character of the disease are worthy of record.

Nine cases of this disease, occurring coincidently in a school, have lately come under my observation. The disease first appeared during last November, and at that time in one child only. Soon after Christmas, and before the first child was well, the molluscum appeared on several other children, and later on others were affected; in all, nine suffered more or less severely. This is, I believe, the largest number occurring at one time yet recorded. In most cases, the eruption was limited, as it often is, to the face and neck and, after lasting for some months, disappeared without any treatment. It is very difficult to understand how a disease of this kind is contagious, and yet the evidence is now so strong that it is impossible to doubt the fact.

Your obedient servant,
ROBERT LIVEING, M.D.

Manchester-square, Sept. 21st, 1878.

UNIVERSITY COLLEGE, LONDON.—The Examiners for the Medical Entrance Exhibitions have recommended Mr. C. M. McShane, Mr. W. C. C. Wilkinson, and Mr. E. R. St. Clair Corbin for the three Exhibitions of the respective values of £30, £20, and £10 per annum, tenable for two years.

THE PARIS EXHIBITION.

(From our Paris Correspondent.)

VII.—THE BRITISH SECTION (CONTINUED).

THE show case of Mr. James Burgess Eadman, of Glasgow, is worthy the best attention of the public, on account of its very complete and scientific character. Here he has illustrated with specimens the whole history of the manufacture of phosphate of soda, sulphite of soda, stannate of soda, citric acid, and phosphorus. In connexion with the production of phosphate of soda, we see the native phosphate of alumina or redonda rock, the raw produce, the rough crystals, and finally the pure phosphate of soda. We follow out the preparation of sulphite of soda by examining successively the crystals of soda and sulphur, the soda after the action of anhydrid sulphur, and, lastly, the refined salt itself. The manufacture of stannate of soda is shown by specimens of granulated tin, caustic soda, nitrate of soda, and refined stannate of soda; and that of citric acid by an arrangement of samples of lemon-juice, limestone, and sulphuric acid, and crude acid, pure citric acid, &c. Thus, an additional interest is given to the articles which are very valuable in themselves. The portion of the exhibit allotted to the manufacture of phosphorus is especially striking. The specimens of native phosphate of lime, of the same treated with sulphuric acid and forming superphosphate of lime, of the raw material, the various stages in the process, the refining and moulding, &c., are very interesting. As to phosphorus itself, it figures only in the shape of a label on a large bottle, the substance having been withdrawn at the urgent request of the commission.

At the end of one of the transverse alleys is to be seen the very extensive exhibit of Messrs. John Richardson & Co., of Leicester. It has a tower shape, with four *façades*. One of these is entirely occupied by bottles of different sizes, containing every variety of their well known soluble pearl-coated pills. These pills form a very elegant mode of administering medicines in a tasteless form. They are manufactured with great care, are pleasant to the eye, and exceedingly handy for use. They are portable, and can be carried about in travelling without the inconveniences attending liquids. It is claimed besides for these coated pills that they do not crack, never become discoloured, are perfectly soluble, and resist all climatic influence. The firm now manufacture and keep in stock six hundred varieties, embracing in simple and compound form nearly every active drug used in medicine. Each pill has its special number. Thus, No. 87 contains one grain of croton chloral, No. 64 is a quarter grain of extract of belladonna, No. 119 is a pill composed of half a drop of oil of croton, with two grains of pil. col. et hyoscy., &c. &c. There is a whole collection of pearl-coated phosphorus pills, containing pure unoxidized phosphorus, simple, and in combination with other remedies. This constitutes an interesting mode of administering phosphorus in the free state as a medicine. The substances combined with phosphorus are, quinine, reduced iron, nux vomica, strychnia, and cannabis indica, valerianate of zinc, muriate of morphia, aloin, &c. &c. The other *façades* of the exhibit are occupied by various chemicals, such as are manufactured and sent out by the firm; various pharmaceutical preparations; some twenty medicinal specialities, amongst which may be particularly mentioned the hypnopoietic (a new and improved solution of opium), the peptocolos (or compound pepsin wine); and the cod-liver oil emulsions, forming a palatable and light preparation, and consisting either of the oil alone, or of a mixture of it with quinine or phosphorus. The medicine chests and emergency cases of Messrs. John Richardson & Co. also deserve to be noticed. The emergency cases are small and elegant, and intended for the table and the pocket. One of them contains twelve phials of pills, and nine of liquids, very neatly arranged. Another includes nothing but a collection of phosphorus pills, contained in twenty-four small phials. There is a compact medicine chest for colonists, and a portable one for emigrants.

Messrs. Robinson and Anderson, of Bermondsey, London, have exhibited specimens of a white lead made from metallic lead by a new process of precipitation, which affords the advantages of rapidity and economy of manufacture. It is also claimed for this process that it does not injure the health of the men employed in the manufacture.

The St. Bede Chemical Company have exhibited huge bottles of fine soda ash and crystal soda, and smaller bottles with equally fine specimens of sulphate of soda, nitre cake, nitrate of soda, block salt, &c. &c.

The exhibit of Messrs. Savory and Moore, of New Bond-street, London, forms a prominent and extensive one in this class of the British section. In the centre of their large and well arranged show-case stands a pillar of their infants' food or *aliment lacté*; from this descend, as it were, three tiers of bottles containing pharmaceutical preparations; whilst on the basement of the whole arrangement is an attractive display of their gelatine preparations. Here and there, in corners and elsewhere, are to be seen their emergency cases, portable pharmacies, and elegant forms of drugs. I need only mention their gelatine preparations for hypodermic and ophthalmic purposes, their great variety and special uses being well known to the profession. They are of small size, easy to administer, and very permanent in their composition. The various food preparations of Messrs. Savory and Moore, their infants' food, pancreatic emulsion, pancreatin, pepsin, and peptodyn, form an interesting portion of their exhibit. They show elegant pharmaceutical preparations of common remedies in the shape of glycerols, oleates, preserved juice of plants, &c. The samples they exhibit of various liquid extracts, and of tinctures of plants in recent use, such as coca, boldo, jaborandi, &c., are very good indeed. So also are their special preparations of datura tatula for asthma, and their effervescing granules of salicin and salicylic acid; their sparkling granules of citrate of magnesia, with lemon, peppermint, and ginger; their pearls of peppermint and ginger, &c. All these preparations are remarkable for neatness and "attractiveness," and, indeed, a character of elegance and taste in the preparation and form of drugs pervades all this exhibit. I need only refer to the samples of barks and leaves of new drugs; but must not omit to notice the various medicine chests, the cases for medical and chemical use, the chemical cabinets for the analysis of air and water, &c. One of the chests, rather a good-sized one, with the shape of a trunk, and a battered, bronzed appearance, showing it has done good use, belonged to Henry Stanley, and was carried about by him in his celebrated excursions. The small medicine chests are of a novel and handy form, with side drawers and compartments, all opening with one key, and appear very compact and useful.

Nothing can surpass the exhibit of T. H. Smith & Co., of Edinburgh and London, either in novelty or excellence. The beauty of their show-case lies in the perfection of their preparations, yet it also shows elegance in artistic arrangement. The most prominent objects are large cakes of codein, chlorhydrate of thebain, and crystals of monobromide of camphor. In front of these are smaller glass receptacles on black pedestals, containing samples of aloin, gnoscopin, meconosin, &c. In the centre of the case hangs a large *coupe* containing a splendid specimen of caffein. The samples shown of Smyrna, Egypt, Persia, and China opium are very fine. The various alkaloids discovered by Messrs. T. H. Smith & Co. are shown in attractive array. We notice in their case: the bolactic acid discovered in 1861; cryptopin in 1864; gnoscopin ($C_{34}H_{38}N_2O$) discovered in 1878; and meconoiosin ($C_8H_{10}O_2$), also discovered in 1878. The sample of cryptopin is exceptionally fine, and shows a crystallisation of almost two pounds. Meconoiosin is a neutral body. Chlorhydrate of cryptopin, also exhibited, is a salt which has the effect, when mixed in strong aqueous solutions, of forming a gelatinous and transparent crystallisation. Messrs. T. H. Smith and Co. have in their case all the preparations of the alkaloids of opium. I may just mention the bimeconate, sulphate, and chlorhydrate of morphia; large white crystals of pure morphia; chlorhydrate of apomorphia; codeia, in a crystallised preparation of about eight pounds' weight; narcein, narcotin, papaverin, meconin; chlorhydrate of thebain, in a crystallised preparation weighing about ten pounds, &c. &c. Aloin, the purgative principle of aloes, discovered in 1851 by Messrs. T. H. Smith, is likewise shown in beautiful specimens. There is an interesting sample of the artificial alkaloid, nitrate of furfuria. I must also mention the excellent preparations of santonin, silicin, salts of strychnia, cantharidin, bromides of ammonium and potassium, &c., and the choice specimens of the resins of jalap, scammony, and podophyllin.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 26th:—

Boughton, William Blockley, Staunton, Gloucestershire
Bullock, Joseph Ernest, Berners-street.
Cotterton, Donald Sinclair, Kimerton, Gloucestershire.
Hopkins, William Freeman, Birmingham.
Roberts, William Arthur Ormsby, Carnarvon.
Sutton, Francis Wm., Richmond-terrace, Clapham-road.

The following gentlemen on the same day passed the Primary Professional Examination:—

John Dugdale Astley, St. Bartholomew's Hospital; Wm. Archdeckne Duncan, St. Thomas's Hospital; Frank Spencer Watson, Charing-cross Hospital.

THE deaths registered in London last week numbered 1355, representing an annual rate of mortality of 19·8 per 1000. There were 2 fatal cases of small-pox, 6 of measles, 30 of scarlet fever, 13 of diphtheria, 53 of whooping-cough, 27 of different forms of fever, and 61 of diarrhœa, whilst 231 deaths were referred to diseases of the respiratory organs.

GUY'S HOSPITAL MEDICAL SCHOOL.—Mr. William Armison Slater has obtained the Open Scholarship of 125 guineas in Classics, Mathematics, and Modern Languages; and Mr. Edwin James Onions that of 125 guineas in Chemistry, Physics, Botany, and Zoology.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The University College Hospital has become entitled to £100 under the will of Mr. Robert John Bagshaw, of Dovercourt.—The Blackburn and East Lancashire Infirmary has become entitled to £1000, under the will of Mr. John Tattersall, of Quarry Bank.—Earl Cadogan has given £120 to the Victoria Hospital for Children, Chelsea, in support of the Chelsea Cot, *in memoriam*.—"H. H.," per Mr. Gascoigne Palmer, has given £100 to the Dental Hospital of London.—The Misses Brooke have given £100 (second donation) to the City of Dublin Hospital, and £50 (second) to the Meath Hospital.—Mr. W. H. Crawford has given £200 to the Hospital for Incurables, Cork.

Medical Appointments.

ASHTON, J. T., M.B., C.M., has been appointed Visiting Medical Officer to the Stockport Infirmary, vice Whittingham, resigned.

ATKINSON, J. M., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to St. Mary Abbott's Infirmary and Workhouse, Kensington.

BEVERLEY, W. H., L.R.C.P.I., M.R.C.S.E., has been appointed House-Surgeon to the Cumberland Infirmary, Carlisle, vice Smyth, resigned.

BROWN, W. J., M.B., L.R.C.S.I., has been appointed House-Surgeon and Secretary to the Hartlepools Hospital, vice Crowe, resigned.

CROSS, F. R., M.R.C.S.E., has been appointed Assistant-Surgeon to the Royal Infirmary, Bristol, vice Prichard, appointed a Surgeon.

DUNCAN, A. G., M.B., C.M., L.M., L.R.C.P.Ed., has been appointed Medical Officer for the Emley and Flockton Districts of the Wakefield Union, for one year.

GIBSON, W. G., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Witham District and the Workhouse of the Witham Union, for five years, vice Proctor, resigned.

GREENWOOD, J. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Shitlington District of the Wakefield Union, for one year.

HEAPS, J., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer for the Lofthouse-with-Carlton and Thorpe Districts of the Wakefield Union, for one year.

HIRST, C., L.R.C.P.Ed., L.S.A.L., has been reappointed Medical Officer for the Ardsley West District of the Wakefield Union, for one year.

HONSFALL, H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Crofton District of the Wakefield Union, for one year.

HOWARD, J., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer for the Altofts District of the Wakefield Union, vice Gimlen, resigned.

HYATT, J. T., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Batcombe District of the Shepton Mallet Union, vice Heginbotham, resigned.

INGLE, R. N., M.D., F.R.C.S.E., L.R.C.P.I., has been appointed Medical Officer for the No. 3 District of the Cambridge Union, at £70 per annum and fees, vice Beck, resigned.

KEMP, B., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Ardsley East District of the Wakefield Union, for one year.

LEESON, J. R., M.B., C.M., M.R.C.S.E., has been appointed a Demonstrator of Anatomy at St. Thomas's Hospital.

LORRAINE, W. J., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer for the Sandal Magna, Walton, and Chevet Districts of the Wakefield Union, for one year.

MACKENZIE, W. S., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer for the Shitlestone District of the Wakefield Union, for one year.

MUSGRAVE, Mr. R. V., has been elected Resident Surgeon to the Royal Sea-bathing Infirmary, Margate.

TAMPLIN, C. H., M.R.C.S.E., has been appointed Surgical Registrar to the National Orthopædic Hospital.

TIDSWELL, T. H., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for Morecambe.

WALKER, H., L.F.P.S.G. & L.M., has been reappointed Medical Officer of Health for the Balsdon Urban Sanitary District, for the ensuing year.

YOUNG, R., M.D., has been appointed a Physician to the Newcastle-on-Tyne Dispensary.

Births, Marriages, and Deaths.

BIRTHS.

BATE.—On the 26th ult., at King Edward's-road, Hackney, the wife of George Paddock Bate, M.D., of a daughter.

FRASER.—On the 21st ult., at Melville-street, Edinburgh, the wife of Thomas R. Fraser, M.D., of a son.

KEEN.—On the 26th ult., at Royal-avenue, Chelsea, the wife of William Keen, L.R.C.P.I., of a daughter.

LITTLEJOHN.—On the 24th ult., at Hanwell, the wife of Saltern George Littlejohn, M.B., of a son.

LUCEY.—On the 1st inst., at Ben-Rhydding, Wharfedale, the wife of William Cubitt Lucey, M.D., C.M., of a son.

PLETTS.—On the 24th ult., at Ryde, Isle of Wight, the wife of J. Menham Pletts, M.D., of a daughter.

ROGERS.—On the 23rd ult., at Shepherd's-bush, the wife of Hildyard Rogers, M.R.C.S.E., of twins.

MARRIAGES.

FENN—WATKINS.—On the 24th ult., at St. George's, Bloomsbury, Charles D. Fenn, M.R.C.S.E., to Mary, widow of J. C. S. Watkins, Esq.

GARRETT—GREATREX.—On the 24th ult., at the Church of St. Mary Magdalene, Paddington, by the Rev. S. H. Bingham, Rev. K. T. Pierson, and the Rev. E. H. Ball, Charles Frederick Garrett, M.R.C.S.E., L.S.A.L., to Mary Augusta, younger daughter of James F. Greatrex, both of Walsall.

DEATHS.

BELL.—On the 3rd August, at Copiapo, Chili, John Charles Bell, M.D.

BORTHWICK.—On the 29th ult., at Dumfries, Alexander Borthwick, M.D.

BRANWELL.—On the 23rd ult., at Montpelier-place, Brighton, Richard Branwell, M.R.C.S.E.

BURGESS.—On the 21st ult., at Glastonbury, John Henry Burgess, Surgeon, in practice prior to 1815, aged 88.

CAMPBELL.—On the 27th ult., at Richmond-grove, Manchester, William Blackadder Campbell, Surgeon, in practice prior to 1815.

GALT.—On the 27th ult., at Ashton-under-Lyne, John Galt, F.R.C.S.E. &c., aged 68.

JEPHCOTT.—On the 29th ult., at Foregate-street, Chester, Samuel Thomas Jephcott, M.D., aged 50.

PURCELL.—On the 21st ult., at Harcourt-street, Dublin, Geoffrey Chaucer Purcell, L.R.C.P.Ed., Staff-Surgeon, Army.

ROBINSON.—On the 26th ult., at Armagh, Alexander Robinson, M.B., aged 79.

WATSON.—On the 27th ult., at Langley House, Slough, James Watson, Esq., M.D., F.R.S.E., of Circus, Bath, aged 86.

YOUNG.—On the 22nd ult., at Clyde-street, Helensburgh, Gavin Young, L.D.S., R.C.S.E.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*]

BOOKS ETC. RECEIVED.

Surgeon-Major S. C. Townsend: Report on the Epidemic of Cholera of 1875-76 in the Central Provinces of India.
F. Jenkin: Electricity and Magnetism.
R. Caizeroues: Des Syphilites Syphilitiques.
Dr. Burggraeve: Le Génie de la Chirurgie Contemporaine.
F. G. Lemercier: Structure de la Dent Humaine.
Mary S. Lamson: Life and Education of Laura Dewey Bridgman, the Deaf, Dumb, and Blind Girl.
Report of the Medical Registrar for the London Hospital for 1876.
J. Kaspary: The Pre-existence, Attributes, and Future of the Human Soul.
Dr. R. Park: A Conspectus of the Different Forms of Phthisis.
James Stocker: Dental Materia Medica.
Dr. G. Crane: De la Paralysie du Moteur Oculaire Externe.
Dr. G. Huette: Histoire Thérapeutique du Bromure de Potassium.
Dr. N. Allen: The Prevention of Disease, Insanity, Crime, and Pauperism.
Studies on the Laws of Life.
The Birmingham Medical Review.
The Medical Temperance Journal. October.
Cassell's Leopold Shakspere. Part I.
Cassell's Heroes of Britain in Peace and War. Part I.
Good Words. October.
Sunday Magazine. October.

Notes, Short Comments, and Answers to Correspondents.

THE LUNATIC ASYLUM, BERBICE.

DR. ROBERT GRIEVE'S report on the Public Lunatic Asylum for British Guiana, at Berbice, during the year 1877, shows an astonishing improvement in the state of the patients in that institution and its general sanitary condition since the asylum has been under his charge as medical superintendant. About two years ago the state of the asylum and of its inmates was such as to excite considerable uneasiness at the Colonial Office, and Dr. Grieve was requested by that Office to undertake the task of organisation of the institution. The wisdom of this selection, as was fully expected by those who knew Dr. Grieve, has been amply justified by the results. The asylum has now been placed in a good sanitary condition, notwithstanding great difficulties connected with its site, the management of the insane has been placed upon a wholly different footing, and regulated labour, combined with amusement and proper supervision, has rendered it possible to discard all restraint and seclusion, while the quietness and order of the wards have manifestly and steadily improved. With this there has been a marked increase of recoveries upon the admissions. Dr. Grieve, however, is not satisfied that the present figure of the recoveries represents all that is possible in this direction, and he seeks a larger number. We wish him still further success.

Mr. Horace Cocks.—Odling's Practical Chemistry for Medical Students.

NON-UNITED FRACTURE.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "Country Practitioner," writing on the subject of non-united fracture, I think the brief history of a somewhat similar case may be of service.

My patient was a farmer in good health, aged forty, but whose left knee was anchylosed at a rather awkward angle, the result of an injury sustained many years before. The muscles of the thigh were in consequence wasted. In the autumn of 1876 he fell from an apple-tree, and fractured his thigh in the middle third. The angle of anchylosis made a double inclined plane the most suitable treatment. At the end of eight weeks, during which time the patient enjoyed good health, and was particularly cheerful, no union was found to have taken place. I can imagine few *contretemps* more productive of anxiety both to the surgeon and his patient. I now saw the man in consultation, and it was agreed to continue the treatment another eight weeks—with no better result. During the last term the man, who was a prey to anxiety, got out of health, and tonics and generous diet were given. He declined any further consultation or operation, and we were then in the position of your correspondent. Nothing could be hoped from further rest; in fact, such would evidently be injurious. I took a stout iron wire, bent it twice at right angles to form a stirrup, riveted a light foot-piece to it, carried the outer side to the hip, the inner about six inches above the site of fracture, and connected the two by hooping iron above and below the injury. Behind the thigh I laid from hoop to hoop perforated zinc (one of the most useful substances for splints), and placed other two hoops above and below the calf. I bent both wires to the angle of anchylosis, passed broad strips of bandages across in front of the thigh, and by passing them through the side wires, and tying them in front, jammed the limb back into the cradle formed by the four hoops. I then slung the whole from a loop each side of the knee to a surcingle over the shoulders, and advised the patient to get out of doors, and move about as best he could. In about three weeks his thigh was firmly united, and he walks and rides as well as ever.

I remain, Sir, yours truly,

Longhborough, Sept. 25th, 1878. W. PAULSON, L.R.C.P. Lond.

E. G.—Snow, fog, and wet characterise Constantinople during the winter; hence it is not a good place for pulmonary invalids. There is no such book published as that indicated.

Tint.—We are unable to give our correspondent the information he requires.

MEDICAL ETHICS.

To the Editor of THE LANCET.

SIR,—Your correspondent, "G. F. W.," names one kind of deviation from the set rules of inter-professional conduct by physicians. Allow me, as a country practitioner of thirty-four years' standing, to mention a far more flagrant instance of departure from professional rule. One of our physicians, regarding himself as the personification of wisdom, regards his professional brethren simply as professional shophoys, who can alone do nothing in the treatment of cases. They, under his guidance, do the dirty work of a case. To such treatment I have more than once been subjected; but "never no more," as the common expression goes, will I run the risk. Yours faithfully,

Sept. 20th, 1878. H.

To the Editor of THE LANCET.

SIR,—THE LANCET being the only medium through which we can call attention to the irregular conduct of the members of the profession, it is my wish to know if you do not think it very degrading and lowering of the dignity of the profession to the anxious tradesman if any member encourages his wife and family to call on new-comers. The doctor on the evening of the same day, or on the following, makes a visit, anticipating the good effect his wife and family had made in his favour. Your views on such proceedings will be gladly received by,

Yours obediently,

Sept. 28th, 1878. M.R.C.S.

STIMULANTS IN WORKHOUSES.

AT a late meeting of the guardians of the South Dublin Union, a report, drawn up by Dr. Evory Kennedy, one of a Committee appointed to examine into the quantity of alcohol consumed in the workhouse, was adopted. The report was to the effect that, although the quantity of stimulants used had been considerably reduced within the past two years, yet there was still room for a further saving, and that this reduction could be effected by the substitution of non-alcoholic stimulants for those now so largely used. The Committee have ascertained the fact that in some other unions, both in England and Ireland, the consumption of alcohol is very much less in proportion to the number of sick inmates in each workhouse, and suggest that the guardians should urge upon the medical officers the consideration of their views with the object of making an alteration in their practice regarding stimulants.

Mr. G. F. Muirhead.—We have not received the paper mentioned.

URBAN AND RURAL FATALITY OF ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—In your list of annotations in last week's LANCET you make some observations relative to the above heading, so contrary to my experience, that perhaps you may deem it proper to insert the following statements and observations in the next issue of the same journal.

The district which I represent as medical officer of health is equal to an area of twenty square miles, having a population of about 100,000. It is divided into six urban districts and one rural. The population of the urban districts is about 40,000, and that of the rural 60,000. During a period of six consecutive years, 550 cases of enteric fever occurred in this combined district that came to my knowledge; of these, 490 happened in the rural—i. e., about three-fourths of the total number,—and the remaining one-fourth in the urban districts.

These facts would appear to upset entirely the basis you have laid down in the rather startling conclusion you have arrived at in the following illogical quotation: "It is of course possible that, whereas enteric fever is essentially an urban disease in England, the reverse may be the case in Scotland."

I am of opinion, and always have been since I have commenced to specially study enteric fever in connexion with insanitary conditions, that rural circumstances generally encourage and favour it more than urban do, and the reasons for holding this opinion appear to me at least tangible.

1st. The water-supply for urban districts is generally stored in reservoirs, far away from human habitations, and delivered by means of pipes. In rural districts it is almost entirely got from shallow wells, close to occupied dwelling-houses, that are hardly in any case effectually protected against surface pollution.

2nd. Urban districts are generally pretty well drained; rural districts are not. I am, Sir, your obedient servant,

ANGUS MACKINTOSH, M.D.,
Medical Officer of Health, North Derbyshire.

Chesterfield, Sept. 23rd, 1878.

*** Dr. Mackintosh will observe that the deaths from enteric fever recorded in the National Death Register supply the basis of the conclusions arrived at in the annotation referred to; and until a system for the registration of infectious diseases be established, his facts relating to the *reported* cases of enteric fever in his combined sanitary district will not assist the decision of the point at issue. Facts, and not theories, are given in the annotation, which, until proved untrustworthy, cannot be lightly set aside, or must at any rate be met by comparable facts.—ED. L.

An Occasional Reader must be aware that cases of epilepsy often develop symptoms which need to be treated in an asylum.

Library.—Lewis's Library, 136, Gower-street, W.C.

"GELSEMINUM" v. "GELSEMIUM."

To the Editor of THE LANCET.

SIR,—The discussion on this point in your pages exhibits some confusion, which is easily rectified. There cannot be any doubt among botanists that the correct name of the genus is *Gelsemium*. It was founded by Jussieu in 1789. At the same time it is quite true that the plant was originally placed under the older title of *Gelseminum* or *Jasminum*—i. e., with the true jasmines. The plant was first described (as pointed out by one of your correspondents) by John Parkinson in 1640, who had grown it from seed brought by Tradescant from Virginia. He called it "Gelseminum sive jasminum luteum odoratum virginianum scandens et sempervirens" out of deference to the donor, and says, "But that Master Tradescant is confident to call it a jasmine, and therefore I am content to put it with the rest to give him content, I would be further informed of it myself before I would certainly give my consent." The plant is still called "wild yellow jessamine" in America, but has no affinity with those plants. The reason why the older word is not employed is because botanists are generally agreed not to go further back for the names they use than the period of the invention by Linnæus of the binominal system of nomenclature to supersede the long descriptive names which previously existed. It is not probable (as has been suggested) that Jussieu accidentally omitted a letter in the word, but that he intentionally altered a name which expressed a wrong affinity, at the same time making it more euphonious. However this might be, could the point ever be decided, it is quite certain that, according to the rules of priority as understood by botanists, the name *gelsemium*, as printed by Jussieu, has the right to be adopted. It would be convenient if pharmacists would adapt their nomenclature to the scientific one.

Yours &c.,

British Museum, Sept. 28th, 1878. HENRY TRIMEN.

STREET CLEANING.

THE *Sanitarian* for September contains some brief but interesting rules on the cleansing of the streets of Paris, the annual cost of which is made to amount to the total sum of £120,450. The disinfectants systematically used, each in its own distinct department, are chloride of lime, sulphate of zinc and iron, and carbolic acid; muriatic acid and nitro-benzole being used for cleansing. The city employs 3000 persons—viz., 2200 men, earning from 50 to 80 cents. a day; 950 women, earning 4 to 5 cents., and 30 boys, earning 4 cents., an hour; and these are divided into 122 gangs. There are also 190 sweeping-machines, each of which does the work of ten men, so that in all the equivalent of 4900 persons are employed. A great many experiments have been tried as to "street sprinkling." Chloride of calcium was found too insoluble and too costly; crude salt and chloride of manganese, and pure and white of magnesium were also tried, but with very partial success, so that it is only allowable to use any deliquescent in case there is a lack of water. The removal of all kinds of refuse (including ice and mud, as well as dirt and the garbage of the market) affords employment to 7000 licensed and as many non-licensed rag-pickers, whose earnings yield a total annual sum of from 7,000,000 to 8,000,000 francs.

Mr. S. Newington.—The MS. has not been received.

TETANIC SPASMS RESULTING FROM SHOCK.

To the Editor of THE LANCET.

SIR,—The following case seems to me to be of sufficient interest to be placed on record.

On the 23rd of July last a lad, aged fifteen, was bathing with four companions in a pond near his home, when he got beyond his depth, and suddenly sank. No one present could effect his rescue, and five minutes at least elapsed before a gallant youth rushed up, undressed, and dived in the direction indicated by the spectators. When taken from the water, an attempt was made to resuscitate him on the spot; but on my arrival, fifteen minutes after the accident, I found him in bed rolled up in blankets, and surrounded by a crowd of anxious relatives and friends. He was then unconscious, very cold, and the pulse about 60. Rapid friction, however, with dry blankets, the free use of hot mustard-and-water to the extremities, hot coffee internally, and the subsequent application of hot-water bottles and several layers of blankets, gradually established reaction. He answered questions in about an hour, and during the night became restless, and required holding in bed. Next morning he was in a stupor, and made several involuntary attempts, in my presence, to bite his hands, while his lower extremities were frequently abruptly flexed and extended. He had conscious intervals during the day, when he complained of frontal headache, and swallowed some fluid food. A mixture of hydrate of chloral and bromide of potassium was ordered, and an ice-cap applied to the head. The above symptoms subsided in a few days; but it was noticed that any reference to the accident aggravated the startings. The lad resumed his usual employment in a fortnight, and at the end of a month from the date of the accident attended a religious tea-meeting, where some of the speakers made injudicious reference to his providential escape from drowning His manner suddenly changed from gay to grave, and he left the room soon after. On his arrival at home, about ten o'clock, he went to bed, and had a "fit." He was again in a stupor when I saw him at nine o'clock next morning, and I observed at the same time that his jaws were tightly locked. His mother told me that he had several "fits" in the night, and just as I was about to depart there occurred well-marked emprosthotonos and opisthotonos in the order mentioned. He had taken no food during the night, and only a little fluid nourishment in the course of the succeeding twelve hours. I saw him again at 9 P.M., and managed to administer a dose of chloral (ten grains) and bromide (half a drachm), after which he slept quietly for eight hours. Next morning he took some fluid food; but the tetanic symptoms returned about ten o'clock, and I decided to see Dr. Barclay, of this town, in consultation. We agreed to push the chloral and bromide mixture, and the patient slept most of the succeeding twenty-four hours, and the symptoms gradually subsided. A noteworthy fact about the case is that in the intervals of the convulsive attacks the patient could open his mouth, show his tongue, and reply rationally to questions when repeatedly urged to do so. My friend, Dr. Barclay, was inclined to think that there was an element of catalepsy in combination with the tetanic condition.

There is no history of epilepsy, and, in the absence of a better cause, I am disposed to attribute the foregoing symptoms to mental shock, resulting, first, from the accident, and, second, from the revival of the impressions a month after the occurrence. No doubt the liability to shock would be greater at or about puberty, when the nervous system is least stable, the emotions in the ascendant, and the brain most susceptible to external impressions. But why a profound mental impression should result in tetanic spasms is a question on which I am unable to pronounce an opinion. Tetanus and tetanic conditions, as a rule, result from reflex nervous action as a consequence of local irritation or inflammation; but we have it on the authority of Brown-Séquard, as quoted by Mr. Woods, of Southport, in your issue of Sept. 7th, 1878, that "an influence of an excitation from outside acting with or without the intervention of the nervous system, or a purely nervous influence starting from a perpheric or a central part of the nervous system," may end in "tetanus, chorea, catalepsy, epilepsy, or delirium." Hence it is that the case I have related derives sufficient interest to be placed before the profession.

Yours truly,

Leicester, September, 1878. ALEX. M'COOK WEIR, M.D., &c.

Mr T. W. Hime.—The paper will appear shortly. The case kindly detailed in the second communication is scarcely, we think, of a nature to call for notice.

An Enquirer begs to thank those gentlemen who courteously afforded him the information he desired.

Queens and *X. O.*—It is not the practice of physicians and surgeons who are really qualified to treat these cases to make a specialty of them; and it may be taken as a fact that those who advertise are either quacks or practising discreditably. Consult a physician of standing, place confidence in him, and rely on receiving sound practical advice. Everything depends on whether it is carried out implicitly.

Mr. J. T. Cocking.—We regret that we have not space for the communication.

MEDICAL PRACTICE IN SOUTH AFRICA.

To the Editor of THE LANCET.

SIR,—In THE LANCET for June 15th, which has just come to hand, there is an article on Medical Practice in South Africa, and I fear lest it may be the means of misleading many of the junior members of the profession, and inducing them to come to South Africa under the impression that practice here is easily got and very remunerative.

I am sorry that you should have been misinformed; but the names given of places where vacancies are said to exist are evidently used in a haphazard way. I can personally affirm that there is no vacancy at Adelaide, nor has there been one for some years; the same with nearly all the towns mentioned. There are at present four district surgeoncies advertised in the *Gazette*; but any man who comes to the colony under the impression that he will make a decent competency in a few years at any of these places would do much better to try his luck at home. Not "comparative expatriation," but expatriation complete and absolute, may the unhappy one expect who finds his lot cast in—to name one of the four vacancies—Namaqualand. How is it that men cannot be induced to remain in these places? The reason appears to be that the amount of money it is possible to make will not be a sufficient equivalent for the absence of all personal comfort, for coarse living and dearth of educated people to associate with. The result is that, after a trial of three or four months, the appointment is thrown up in disgust, and appears in the Government *Gazette* again, to gull some other unfortunate.

A common complaint against "doctors" in the colony is that they are addicted to habits of intemperance. This I believe to arise partly from the fatigue induced by long journeys on horseback or in a cart, exposed to a hot sun and dusty wind, and over execrable roads, but also in a great measure it is owing to the monotony of existence in South Africa, and the want of cultured people to exchange sympathies with.

At present the colony is overstocked with men, many of whom have just been discharged from appointments as surgeons with volunteers or troops, a general amnesty having been proclaimed in Cape Colony.

I forward a colonial paper, containing a paragraph commenting on the article in THE LANCET. From it you will see that I am not alone in my opinions; but that the lay view of medical prospects in the colony, when truly expressed, is as unfavourable as the professional.

It is quite possible to make £800 a year in South Africa, and to save a third; but it cannot be done without hard work, and must be gradually accomplished.

I trust you will pardon my troubling you; but I feel that you have been misled by a too favourable representation of medical opportunities in South Africa.

I remain, Sir, yours &c.,

South Africa, July 30th, 1878. TRUTH.

F.R.C.P. Ed.—Our correspondent should apply to the respective bodies for the information he seeks.

Dr. Creed's paper will be published in an early number.

ECTROTIC TREATMENT OF HERPES ZOSTER.

To the Editor of THE LANCET.

SIR,—The abortive treatment of herpes zoster has been tried by introducing a finely-pointed pencil of nitrate of silver into the vesicles; but it has the great disadvantage of leaving an indelible mark, and this almost amounts to an insuperable objection. The following case may not be uninteresting, in which carbolic acid was used.

A girl, aged nine years, of rather anæmic appearance, suffered from herpes zoster on the left side. The vesicles were disposed in the form of a band, and extended from within an inch and a half of the sternum across the inferior angle of the scapula to the spinal column. The band or belt of vesicles consisted of three tolerably distinct patches or aggregations, the largest cluster being nearest the spinal column; there was a certain amount of redness of the skin around the base of these clusters of vesicles. The patient did not complain of much pain, merely a slight tingling or smarting.

I began treatment by dipping an ordinary surgical needle into pure carbolic acid, and then inserting it a very small distance into each vesicle. The two anterior clusters withered up in a few days. In the posterior cluster of vesicles there was slight superficial ulceration; but I do not attribute that to the use of the carbolic acid, as I have seen ulceration where no acid had been used. I applied to the part a lotion of carbolic acid and glycerine (1 to 8), and the result was most satisfactory. No medicine was given by the mouth.

I am, Sir, yours truly,

September 16th, 1878. J. G. THORNLEY, M.D.

"A SUGGESTIVE CUSTOM IN DEVONSHIRE."

To the Editor of THE LANCET.

SIR,—With reference to the letters which have appeared in your journal of late on the above subject, and referring to the unfitness of the female to undertake certain delicate duties during the catamenial period, I would wish to add that a similar belief obtains among the Chinese and Japanese, who do not allow menstruating females to gather or indeed have anything to do with the manufacture of tea. This idea seems to have countenance from the Mosaic law, that "whatever the unclean person touches becomes unclean," and that by that law a woman during that period was unclean. Pliny describes mischievous property to the menstrual flux; it blights fruits and buds, rusts steel, &c. &c.

Faithfully yours,

London, Sept. 24th, 1878. ADOLPH H. ALLSHORN, M.D. Edin.

MEDICAL MISSIONS.

Mr. Horace R. Smith.—There is such an institution as the Edinburgh Medical Missionary Society for training and sending out fully educated medical men to co-operate with missionaries. The Secretary and Treasurer is Mr. R. C. Bell, who would, doubtless, supply all the information desired by our correspondent.

PHYSICIANS' FEES.

To the Editor of THE LANCET.

SIR,—That physicians' fees are mostly inadequate, and that it is difficult to raise them, are truths which your correspondents appear to recognise. But they seem to have overlooked some of the sources of the evil. The chief reason why physicians' fees are so low, and why it is not easy to increase them, probably lies in the superabundance of physicians. I would draw attention to what I conceive to be two concurrent causes of this superabundance. Firstly, it arises in great measure from a persistent and undue development of new hospitals, and from a continuous and undue increase in the staffs of old hospitals. Secondly, those of us who know much of medical schools must have noticed that of late years an unreasonably large proportion of medical students have got into the habit of expecting to be consultants. We must all be proud of the general advance in the standard of medical education which has been gained in recent years, an advance which we ought to strive to maintain and increase. But does not the experience of those who are competent to judge suggest that one of the results of this improvement has been the undue development amongst medical students and young medical men of a desire to follow what they conceive to be the higher and more dignified walks of practice? I think I have seen young men wellnigh ruined by the possession of a degree from the University of London or the Fellowship of the Royal College of Surgeons. It is so difficult for some of them to understand that, although they have been amongst the best students of their year at their schools, and although they have been very successful in passing the most stringent examinations, they are not on these accounts necessarily qualified to succeed in consulting practice. I speak of facts within my own experience when I say that some men who take the higher qualifications of the Universities and Colleges go on for years nursing their ill-grounded ambition to be physicians or consulting surgeons; their less aspiring contemporaries pass them in the race for competence, and at last, when their hair is growing grey, and the *res angustæ domi* become insupportable, they are compelled to settle in earnest to the honourable course of general practice.

I know something of the difficulties of the question of the equitable reciprocal relations of patient, general practitioner, and physician. In the present unsettled state of professional opinion in this matter, and in the unfortunate absence of any generally accepted code of professional ethics amongst us—such, for example, as exists amongst lawyers,—each physician learns that he must settle and define for himself the scope and bearings of his practice. I know that many eminent consulting physicians, with perfect honesty, maintain that they are entitled to attend patients alone at their own homes if only they secure physicians' fees in acknowledgment of their services; but not a few, I hope, amongst physicians, and probably a large majority of general practitioners, hold that a physician in his private practice ought not to see patients outside his own consulting-rooms, except in consultation with their ordinary medical attendants. In medicine there will always be consultations. There is ample room for two classes in the profession, which might exist without rivalry, and work in friendly and salutary co-operation—the class of general practitioners, already sufficiently defined, and a class of physicians who limit their practice to consultations in their chambers and to consultations at the homes of patients with their usual medical advisers. Such physicians would have to wait and work for many years before they could be fully occupied in private practice; they would have ample leisure to qualify themselves for being real consultants; they would be able to give their brethren opinions which would be really valuable, and for which the public would be ready to pay handsomely. If all physicians were of such a class, we should probably hear no more of the inadequacy of their fees. But so long as hospitals and hospital appointments are unduly multiplied, so long as the profession is overrun with a mushroom crop of consultants, so long shall we be hampered and harassed by a spurious race of *soi-disant* physicians, who, in an ignoble competition amongst themselves and against their more honest brethren in general practice, will keep down physicians' fees, and degrade the status of a physician before the profession and the public.

Yours &c.,

September, 1878. Z.

DISLOCATION OF THE THUMB.

To the Editor of THE LANCET.

SIR,—A somewhat similar case of the above injury, as reported by "Beta" in your issue of Sept. 21st, came under my treatment in Scotland several years ago.

A gentleman, after dining out, fell down stairs in going to bed, but was not cognisant of anything materially wrong that night, but was so the following morning. On seeing him I found compound dislocation of the distal phalanx of the right thumb, and resting over the second, the ends of both being perfectly dry and glazed at the end of ten hours. I put the parts in apposition, and, on the principle of *similia similibus curantur*, simply applied lint soaked in whisky and cold water, without any splint. Under this treatment, in ten days the lacerated joint had healed by first intention, without any suppuration, and with perfect use of the same.

By-the-bye, are not infantile remittent fever and typhoid fever recognised by the best authorities (including Dr. West) as being one and the same disease, taking into consideration the matter of age? Such, at least, is my own conviction. The term "typhoid," as being alarming, ought, I think, from what you hint, to be abolished.

I am, Sir, yours &c.,

Lewisham, Sept. 23rd, 1878. P. CAMPBELL, M.D.

Omega.—Our correspondent suggests as the new title for the A.M.D. the "Corps of Royal Surgeons," leaving out the word "Army," as he says there is no other class of doctors spoken of as Royal. Did he never hear of the medical officers of the Royal Navy? Designative adjectives may, as he says, be objectionable or even vulgar; but we believe they are, nevertheless, necessary.

T. A. W. is thanked.

Undergraduate.—Holmes', no doubt, will suffice.

TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—"An Enquirer's" letter has certainly elicited quite a catalogue of replies. To my mind some of them are quite astounding. Can it be seriously conceived that a man can possibly have "typhoid fever" (as people will erroneously call it) after he has passed the age of susceptibility to its influence?—in other words, when he has lived so long as to have nothing of Peyer's patches left in him! The thing is physically impossible, and if after the age of forty (average) cases really crop up (as noted by your correspondents in latest number), the time has arrived for framing another new and sounder pathology of enteric fever than the generally received one of to-day. Now, then, accepting current pathology of the subject as infallible, the question arises, Why should forty be singled out as the limited period of liability, and the succeeding years past the prime of life as the period of immunity? The reason is simple enough. It is this: Forty is the time of life when Peyer's patches (the special seat of lesion) begin to degenerate, and enteric fever cannot touch the advanced in years because Peyer's glands are absent in the old. *Ergo*, I am at liberty to question the diagnosis "typhoid fever" in such an individual, and this, I trust, without offending. I would beg my readers, even my seniors, who may be unwilling to concede what I am contending for—viz., the positive teaching of the post-mortem room,—to look at the anatomical fact in relation to the small intestine to which I have endeavoured to draw attention in this communication, and with which undoubtedly they must be familiar. That little fact embodies the *rationale* of pythogenic fever, and is a safer guide than opinions in determining the limits, as to age, of human impressibility to the disease just discussed.

With these remarks I leave it "to those whom it may concern" to decide for themselves whether it is in the range of the possible for an old man, say of seventy-two or seventy-six (ages given by correspondents in your last issue) to suffer from "typhoid fever."

Your obedient servant,

Laira, October, 1878. H. KIERNANDER, L.R.C.P. Ed., &c.

MEDICAL PRACTICE IN MELBOURNE.

WE have received the following extract from the letter of a practitioner in Melbourne, and our readers must judge for themselves as to its merits:—

"Melbourne, August 3rd.

"I want to put this very strongly. If anyone asks you in future about coming out here to practise, urge them *not to*, unless they have enough coin to live on for some time. When I came out, there were lots of vacant places for doctors; but men have been pouring in so fast that it is played out, and a man may wait for months to get a billet. If a man has no coin he had better stay at home; for there he will probably have friends who won't see him starve, and here he literally *will* starve, as I have seen plenty of men do. G——, the doctor who came out lately, has got a berth up country; but he will have to pay heavily for it, and he told me that if he had not had friends he must have starved."

A Canadian Medical Student would do well to write, stating the facts, to a surgeon in connexion with one of the principal hospitals in London.

A. H. should consult his own medical attendant.

HYPODERMIC INJECTIONS OF ERGOTINE.

To the Editor of THE LANCET.

SIR,—In two numbers of THE LANCET for last year I was allowed to make some remarks on the rather extensive use I have made of ergotine administered hypodermically, and insisted on its great utility when, from any cause, the stomach could not retain, or benefit by, ergot given by mouth. I specially instanced shock, when the system cannot absorb anything swallowed; and, further, I expressed regret that in leading obstetric works the hypodermic use of ergotine, especially in post-partum hæmorrhage, was not referred to. But your correspondent, "F. D. L.," inquires about its subcutaneous administration in labour tedious from insufficient uterine contraction, and asks, first, the dose. I employ always for hypodermic use Bonjean's ergotine, and consider four grains dissolved in water a good dose. This is repeated in about a quarter of an hour if necessary, and I might give a third after the same lapse of time. If the ergotine solution be good, my experience tells me characteristic ergot-pains *must* follow its hypodermic administration, and *may* if given by the mouth. Of course, this does not affirm that the fœtus will be expelled; it only declares that ergot-pains will be produced. The question is asked, "What part of the body should be operated upon?" and the answer is, Anywhere. The site of insertion makes no difference as to effect, although the hard black lump produced in some patients may be somewhat painful. This lump I have never seen suppurate, nor have I seen ergotism induced by this mode of using the drug. The buttock or arm practically answers as well as any other part of the body for the reception of the solution.

In consequence of my former papers on this valuable medicine, I received numerous letters from brother-medicos interested in this subject, and also, from druggists, samples of the solution I recommended. One solution I found inert. Therefore, should failure follow its use, let me suggest that a different sample should be obtained.

Yours &c.,

Melksham, Wilts, Sept. 1878. S. GROSE, M.D., F.R.C.S.

A METHOD OF DESTROYING THE CONTAGION OF YELLOW FEVER.

To the Editor of THE LANCET.

SIR,—I desire to ask your attention to a method of destroying the contagion of yellow fever, which for some time past I have thought would prove completely effectual if adopted.

My plan, briefly stated, is this: It is a well-known fact that frost will cut short an epidemic of yellow fever. Now, apply to the cases that come in from an infected vessel (usually but few at one time) a low degree of temperature (say 37° Fahr.) in a room or ward fitted for the maintenance of cold air, and ventilated only by ventilators. This room can be made cold, and kept so by some of the large ice-making machines, or such as are used for refrigerating large rooms for preserving meats or for keeping fruit natural out of its season. Have a small ante-room with spring doors, and springs attached to the ingress and egress doors of the ward, so that the opening and closing will not allow much warm air to enter the room. Have everything that comes out of that room, such as clothing, excretions, &c., submitted for hours to a temperature several degrees below the freezing point. The respired air of the patient is thus rendered innocuous to those who may be in attendance, and the air of the room is freed from the poisonous principle before the patient breathes any of it again. The patient can be well wrapped up sufficient for comfort; but if he cannot endure the cold room, another room situated next to the cold room, with no mode of access except through the cold room, might be substituted, and everything from the warmer room be compelled to remain for some time in the cold one till these have been thoroughly chilled through.

In the matter of destroying the germs of the disease in a cargo or vessel, the apparatus that is capable of cooling large rooms for producing ice, and for other such purposes, ought to be competent to keep up a low degree of temperature for a day or two in a vessel where the hatches can be closed so easily. The only question here, aside from the expense, is the portability of the apparatus on to a vessel. However, the cold-producing apparatus could be erected on the wharf; hospital rooms for fever patients on the one side, and the vessel be brought up to the wharf on the other side of the apparatus, and the machine worked for both purposes.

I would also recommend the freezing of all baggage, freight, and mail matter going from any infected city, as a mode of prevention of the spread of the disease in that manner.

I submit the matter for your kind consideration, trusting it will be thoroughly tried if occasion should require, and the results made known to me.

Yours respectfully,

Philadelphia, Aug. 28th, 1878. BUSHROD W. JAMES.

*** We print this letter as worthy of consideration. The plan, if likely to be successful, is by no means difficult to carry out.—ED. L.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Brown-Séquard, Paris; Dr. Edis, London; Dr. Farquharson, London; Dr. Alsberg, Cassel; Dr. Blandford, Penzance; Mr. A. Longman, Andover; Messrs. Lorimer and Fletcher, London; Mr. Tamplin, London; Dr. Lediard, London; Dr. Weir, Leicester; Mr. Newington, Tiesharst; Mr. Warren, Upton; Mr. Loadbetter, Manchester; Mr. Prideaux, York; Mr. Morris, Hulme; Dr. Mackintosh, Chesterfield; Mr. Orwin, Brixton; Mr. Nettleship, London; Mr. Grose, Melksham; Mr. Worsley, Preston; Mr. Leeson, Richmond; M. Riviere, London; Dr. Lee, Washington; Mr. Skelton, Plymouth; Mr. Bancroft, Edinburgh; Dr. Owen, Manchester; Dr. Tibbits, Bradford; Mr. Cleating, Thetford; Mr. Ely, London; Dr. Moorhead, Tullamore; Dr. Clunes, Victoria; Mr. Battoms, London; Mr. Kozminski, London; Mr. Smith, New York; Dr. Rosenstein, Philadelphia; Dr. Hayated, Worcester; Mr. Benson; Mr. R. S. Smith, Bristol; Mr. Atkinson; Mr. Browne; Mr. Himo, Sheffield; Dr. Holden, Sudbury; Dr. Yeld, Sunderland; Mr. Boyle, Paris; Mr. Young; Mr. Robinson; Dr. Harris, Ramsgate; Mr. Haynes; Mr. White; Dr. Duncan; Dr. Walker; Mr. Coleman; Dr. Ringer; Dr. Harries, Aberystwith; Mr. Baker; Mr. Taberner; Dr. Goulds, Dudley; Dr. Woods, Toxteth; Mr. Cocking, Plymouth; Mr. Foster; Mr. Kiernander, Lairs; Dr. Hebblethwaite; Dr. Walker, Baildon; Mr. Keswick; Messrs. Lockwood and Co.; Mr. Wheeler; Dr. Evans; M.R.C.; A Departmental Medical Officer; Omega; H.; T. A. W.; L.R.C.P.; X. O.; Ast.; Undergraduate; Alpha; Totus; An Occasional Reader; A. H. H.; Medicus, Hull; F. P.; Obstetricus; The Registrar-General of Edinburgh; X. Y. Z.; An Enquirer; &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Carter, Chester; Mr. Gettings, Walsall; Mr. Ormond, Wantage; Mr. Pletts, Ryde; Dr. Maskew, Lyndhurst; Mr. Stride, Brighton; Mr. Wright, Chester; Mr. Brown, Leeds; Mr. Brooks; Dr. Harding, Whittlesea; Mr. Coward, Huddersfield; Mr. Thomas; Mr. Ford; Mr. Jenkinson; Mr. Wilson; Mr. Hulsh; Mr. Dowdeswell; Mr. Kennedy; Dr. Frain, South Shields; Mr. Glimblett; Mr. Holmes; Mr. Underhill; Dr. Brady; Dr. Friar; P. H. S., Epperstone; Alpha; M. C. P.; W. A. M.; C. R., Barnsbury; W. N. O., Glasgow; O. F., Aberdeen; L. R., Hadar; G. H., Ramsgate; M. D.; M. B. C.; J. P., Dorchester; R., Liverpool; L. C.; M.R.C.S.; X. Y. Z.; M.R.C.S., Paris; D. W. F.; F. W. T.; C. M., Portmadoc; Medicus, Uxbridge; Junior Doctor; Secretary; Medicus, Harrow; M. S., Derby; S. R. J.; M. A.; P. F.; M. C. P.

Home Chronicler, Cornish Telegraph, Britannic, Swansea Daily Shipping Register, Sheffield and Rotherham Independent, White Mountain Echo, Bucks Herald, City Press, Animal World, Sheffield Daily Telegraph, Northamptonshire Guardian, Western Morning News, Bradford Observer, Carlisle Journal, Standard, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 9 a.m. by Steward's Instruments.)

THE LANCET OFFICE, OCT. 3RD, 1878.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radiation in Vacuo	Max. Temp in Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sep. 27	30·07	W.	51	60	88	61	45	..	Fine
,, 28	30·11	S.W.	58	59	94	68	50	..	Cloudy
,, 29	30·07	W.	60	64	81	66	51	..	Cloudy
,, 30	29·98	W.	50	59	93	65	54	0·06	Overcast
Oct. 1	30·02	N.E.	51	52	60	62	51	..	Overcast
,, 2	30·21	N.E.	45	48	80	62	42	0·04	Hazy
,, 3	30·21	S.W.	55	58	82	65	45	..	Fine

Medical Diary for the ensuing Week.

Monday, Oct. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 6 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Oct. 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Oct. 9.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
HUNTERIAN SOCIETY.—7½ P.M. Council Meeting.—8 P.M. Mr. J. Hutchinson, "On some unusual forms of Syphilitic Disease of the Nervous System."

Thursday, Oct. 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Oct. 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Hulke, "On Fracture of both Humeri; Rupture of Left Brachial Artery, Loss of Conductivity of Median and Radial Nerves of Left Arm, and other injuries; Recovery, with complete Restoration of Nerve Function."—Mr. Hutchinson, "On a Case of Supra-pubic Lithotomy for a large Stone."—Mr. Lucas, "On a Case of Pistol-shot Wound of the Skull."—Dr. Whipham, "On Perforation of the Appendix Cæci and Cæcum, followed by Pyæmia."

Saturday, Oct. 12.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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